DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. V. BOSTON, FEBRUARY, 1853. NO. 2.

RAYNOLDS & NOURSE, Proprietors. Office....Quincy Hall. SIMON BROWN, Editor. FRED'K HOLBROOK, HENRY F. FRENCH, } Associate Editors.

CALENDAR FOR FEBRUARY.

The Saxons called February *Sprout-kele*, because in this month kele-wurte began to throw out wholesome young sprouts, which were the chief winter-wurte for the sustenance of the husbandman in those days. The "kele" being the well-known kale of the cabbage tribe. The Saxons also called this month "Solmonath," which means "*pan-cake* month," because in the course of it, cakes were offered by the pagan Saxons to the sun; and "Sol," or "soul," signified *food* or *cakes*.

Well, there is some difference between to-day, and the times when those old sun-worshippers lived. They would be horrified to see us *eat the cakes* which they offered perhaps as a propitiatory sacrifice, and then jump up and light our pipes by the sun! Notwithstanding, we think *eating* the cakes a more rational use of them than sacrificing them to old Sol, who looks as though he had not only a plenty of good cakes, but roast beef too. We hope, therefore, our people will eat their cakes themselves, and grow lusty upon them, maugre the Saxons, and their sun-worship.

Striking changes have taken place in the business of the country, and have broken up some of the pleasant old customs of the rural districts, and which are mourned over as "halcyon days and scenes never to return." Clare, in his Shepherd's Calendar, written many years ago, describes the gatherings of farmers in old England much as the farmers still collect in many places in this country. He says:—

"Now musing o'er the changing scene,
Farmers behind the tavern-screen
Collect;—with elbow idly press'd
On hob, reclines the corner's guest,
Reading the news, to mark again
The rise of beef, or price of grain.
Puffing the while his red-tipt pipe,
Or telling stories, over-ripe.
Yet, winter's leisure to regale,
Hopes better times, and sips his ale."

Once, the country roads, all through New England, were jubilant with merry bells and voices through the winter months. Then the mountains and vales poured forth their hardy sons, seeking distant markets for the products of their summer's toil. Lines of box sleighs filled with beef, pork, mutton and venison, cheese, butter, and honey, were impelled by fleet and powerful horses, skimming the plains and threading the valleys and presenting a most animating scene. There were taverns in those days; and in the cheerful light of their log-fires, after night had set in, gathered the hardy sons of the mountains. Here they fortified the "corporeal man" from their boxes of cold roast fowl, apple-pies and doughnuts, and while the storm blew furious without, they grew warm with sympathy, and with the log fire within.

And now this scene reminds some one of a benighted traveller, who lost his way in the mountains, and, but for his faithful dog, had perished in these lonely regions. He tells the tale,—and then each, in turn, relates his story of some perilous adventure amid the snowy mountains in the winter. And there was "flip" and "sling," in those days, and these went round sometimes, with the "merry tale," until the travellers were "unco' glorious." But as their pitchers grew light and the flame decreased, their eyes grew dull, and one after another their heavy tread might be heard approaching the bed,

"Where mortals the sweets of forgetfulness prove."

All this was a part of their Farm Work for February.

Now how changed the scene! Through yonder valley comes a strange looking monster, emitting smoke and flame, plunging into drifts and scattering them like chaff from its path, and bearing along to market, in its capacious storehouse, the products of an hundred farms! It comes at all times, and seasons—laughs at the elements, and makes night hideous with its unearthly screams, its gleaming eyes and fretful jar.

And this is the way the *locomotive* does this part of the Farm Work for February in 1853!

But there are other things which the locomotive cannot do. A part of the farm-work of this month, is, to read a great deal from the best books which treat of your particular business. There are plenty of books, two dozen of which would be sufficient for a whole town. Among them are Davy's Agricultural Chemistry; The Muck Book; Rural Economy; Bridgman's Young Gardner's Assistant; Fessenden's Complete Gardener and Farmer; Nash's Progressive Farmer; Buel's Farmer's Companion; all Downing's works; Harris's Work on Insects Injurious to Vegetation, and others, which you will find referred to on reading these. It is as important for the farmer to read these and other books of similar character, if he means to understand his profession, as for the lawyer to read Coke upon Littleton, or Blackstone. This reading is an indispensable part of his farm employment, or amusement, and will help to increase his crops as he understands the principles of growth in the plants he is rearing.

Then another important duty to be attended to in February, is, to see that your children are reaping the largest possible benefit from their attendance at school. Feel interested yourselves in the studies they are pursuing; converse with them often, and impress on their minds the importance of close application and studious habits, while young. They will catch vigor from your kind inquiries, and climb the "Hill of Science," pleasantly in your company.

When these duties are well discharged, a *new pleasure* will be found in looking after the stock and poultry, in sledding the fuel and timber, in preparing the farm implements, the plow, harrow, yokes, carts, hay-wagons, rakes, scythes, &c. Then the fencing materials must be collected for the hill or river-lot, the posts morticed and rails split, or stones drawn when the snow is thin. Save every moment from spring labor by drawing out as much manure as possible before the ground is soft, and other cares press upon you.

What results have you arrived at in your experiment of cutting fodder for your stock? Has not your bay of hay reminded you of the widow's cruse and meal barrel, by holding out beyond any former time? Make your experiments as exact as possible and keep accurate accounts, so that your neighbors may have the benefit of them.

Bear in mind that scions must be cut before the sap moves, and when cut, place them in a damp, cool place, so that they shall not shrivel.

If you have trees that *actually need* trimming, do that, too, before the sap moves. Use sharp tools and leave every wound smooth and in a workmanlike manner.

Are your accounts all settled for 1852? Unsettled accounts are not pleasant subjects for meditation in the beautiful fields!

The time draws nigh when *spring work* will demand all your attention; so let us be up and doing, and ready for "old Sol" by the time he has warmed the soil sufficiently to receive the seed.

For the New England Farmer.

THE RICHNESS OF LAND

PROPORTIONED TO THE QUANTITY OF STOCK KEPT.

MR. EDITOR:—Whatever may be said of the importance of guano, bone-dust, poudrette and other natural and artificial fertilizers of soils, it cannot be doubted that, with respect to the great majority of farmers, they must depend, principally if not entirely, on the manures they make upon their own farms. Purchased manures of all kinds are always expensive, and will rarely be obtained to any considerable extent. It behoves the farmer, then, to manufacture all the manure he possibly can, in his own various laboratories. He must keep his cattle and swine constantly at work, and by supplying them with the requisite materials, he may always make them *self-sustaining* animals, by the quantities of manure they will create. And as one important means of enriching his farm, he should *keep as much stock as he can* and keep them well, for the law of progress in the case is, that *keeping all he can* will give him the means of *keeping more*. By observing this law, his means accumulate, and his ability to keep more is continually increasing. It is on this principle that some farmers, in the lapse of a single decade of years, convert a desert into a garden, and on the most sterile soil rear up around them a luxuriant vegetation, and a richness of scenery which "Shenstone might have envied." While writing these lines, and in strong corroboration of the doctrine here laid down, the following paragraph in a European work fell under my notice, and quoting it endeth this chapter.

"The real source of the great fertility of the great Lombardian plain is now known to be its high cultivation. In the triangle included between Milan, Lodi and Pavia, each side of which is little more than twenty miles in length, there are, it is estimated, not fewer than 100,000 head of cattle, 100,000 pigs, and 25,000 horses, in addition to the human population. It is to the immense supplies of manure, solid and liquid, obtained from these sources, and not to the refuse of the towns themselves, that the richness of the soil is mainly attributable." D. C.

Waltham, Jan. 21, 1853.

For the New England Farmer.

MUCK—THORN AND QUINCE STOCK.

MESSRS. EDITORS:—I intend in the spring to set an orchard of early peach and other choice early fruit trees,—my land is a hill of moderate elevation, the soil is rather better than the term "sandy or gravelly knoll" would imply. I have plenty of peat or muck, but not enough that has been exposed a sufficient length of time to the atmosphere. I should like to be advised through your valuable paper, or otherwise, as soon as convenient, what I had better mix with nearly green muck to make it suitable to apply to such land, and for such purposes. (*a.*)

Is the thorn as good as the quince to graft the pear into? We have plenty of them around us growing wild and thrifty.

Any advice or remarks in regard to the above, would be very gratifying to me, and I doubt not it would to many others. Yours,

PAINTER, TURNED FARMER.

Milford, Jan. 17, 1853.

REMARKS.—See article in another column on "Composting with Muck."

(*a.*) If you must use "green muck," mix with lime. In another heap, try unleached ashes. If you can procure tanner's scrapings, try a heap with those. But next August throw out a heap of the mud that shall give you fifty cords in advance, and keep it good from year to year.

Will some person who has had experience, answer the question asked above, whether the thorn is as good as the quince to graft the pear into?

LEGISLATIVE AGRICULTURAL MEETINGS.

FIRST MEETING—TUESDAY EVENING, JAN. 18, 1853.

In accordance with the custom for several years past, those members of our Legislature and others interested in agricultural matters, assembled in the Representatives' Hall, at the State House, on Tuesday evening, for the purpose of forming themselves into an Agricultural Society.

The meeting was called to order by AMASA WALKER, of North Brookfield, and H. H. COOK, of Berkshire, appointed temporary chairman, and W. W. HILL, of Boston, Secretary *pro tem.*

Upon taking the chair, Mr. Cook announced the meeting as open for business.

At the suggestion of Mr. BROWN, of the *N. E. Farmer*, the full organization of the society was postponed until the next meeting, and the time devoted to an informal discussion. This course was adopted on account of the absence of the Secretary of last year, with the records; and many gentlemen who have heretofore taken part in the meetings, which rendered a permanent organization inconvenient.

Mr. Brown suggested as a topic for discussion, a resolution setting forth the importance of the agricultural interest in this Commonwealth, and the need of a greater diffusion of agricultural knowledge among the people.

He then went on to remark that in mechanical and manufacturing pursuits we find those interested combining for the purpose of mutual benefit. If their business becomes depressed, or meets with new developments, they immediately come together to consult on the causes of the fluctuation and changes in their callings, and take such measures as wisdom dictates. Not so with the farmer. He has overlooked the advantages of this combination and has relied solely on his individual knowledge and intelligence.

If a man is to follow the sea, the law, or the ministry, he should and does prepare himself by a course of study for the profession in life which he has chosen. But is it so with the farmer? He reads but few of the numerous agricultural books which exist in our libraries, acquires little scientific knowledge, and consequently makes but little progress in his calling,—falling into all the errors of those who have preceded him, and striking out but few new improvements.

Mr. WALKER concurred in the resolution offered by Mr. Brown. Agriculture is a very important interest in the Commonwealth, and much more so than is often supposed. Not only the farmers proper, but many mechanics own and cultivate tracts of land, and derive much of their income from this source. This fact calls for the dissemination of agricultural knowledge, and this knowledge must be carried to the people by means of agricultural associations.

It may be asked why we need more information than our forefathers? There are three stages in agriculture. The first is when the land is first cleared—then it is rich and fertile, and requires no artificial manuring. The second stage is that in which the soil becomes partially exhausted, and the farmer has to put into his land the manure which his own resources furnish him, and this suffices for a time. The next and last stage is when he is obliged to raise larger crops than his ordinary manure will enable him to do. We have reached this stage. Now, the question comes up, how is the farmer to increase his amount of manure? In order to answer this question, science must be consulted. Science must inform us what ingredients are necessary to replenish the soil, and enable us to produce the desired crops. The speaker had himself experienced this want of information, and had sought the aid of scientific men with success.

He believed that nine-tenths of the farmers in the State were devoid of this important information. What we want to know is, what we can do to bring back to productiveness our worn out lands.

Mr. WELD, of Topsfield, believed that we must call science to the aid of agriculture. He wanted clearer knowledge as to the manner and extent of applying artificial manures. What proportion would be profitable? He had applied 100 bushels of ashes to the acre in moist, upland soil, and thought that amount necessary. He wanted scientific men to conduct experiments, and then make full, complete and honest statements in regard to the *modus operandi*.

Mr. SMITH, of Hampshire, related some facts in support of the views of Mr. W.

Mr. WALKER, of Worcester, said that one great obstacle to the attainment of the object set forth this evening, was the diversity of circumstances appertaining to evils. Experiments that prove entirely successful in one part of the country, completely fail in another. There is no certainty

about it. He did not know how he could get that amount of information diffused throughout the country which is necessary to make a man a successful farmer. He believed that every farmer must be his own scientific experimenter. Hardly any two agree in their systems, showing that what one man finds to his advantage may prove unprofitable to another. Every man must study the science of agriculture himself. No general principle can be laid down. What we want to know is how to make farming profitable. If a man has a farm which he can carry on with his own hands alone, he will make little money; but let him take a farm which requires extra help, and his profits will increase, for he will make a profit on his hired labor. We need enterprise more than we do manure.

Mr. Howe, of Southboro', inquired, if in getting a profit on the labor of those he employs, he did not prevent them from ever getting farms for themselves? He did not like that kind of enterprise which keeps other people down.

The gentleman then went on to say that he had employed ashes on a side hill of moist soil, and saw a great improvement in consequence; and then he applied it to another lot of similar soil and received no benefit whatever. Again, he had a lot of twelve acres, on six of which he had applied plaster to great advantage. He then applied it to the other six and received no benefit whatever.

Mr. Walker, of Worcester, said in reply to Mr. Howe's question in regard to profit on hired labor, that there were a great number of laborers coming into this country who were without the means and incompetent to carry on farming, and were glad to obtain any kind of employment. He saw no harm in making use of this labor in the way he had intimated.

Mr. Amasa Walker believed that this failure of experiment might be easily explained. Perhaps the manures applied were of poor quality, or the season unfavorable to its use. He had once applied plaster to a piece of land, but the first year he could perceive no benefit from it, and came to the conclusion that it needed to be applied the second year. He did so, yet he could hardly perceive its effects. He could only discover a small, white clover springing up. He continued the application, and was satisfied that it paid well. This, he thought an illustration of the need of more accurate scientific information.

Mr. Rowley, of Egremont, said, he also felt the need of more specific, practical knowledge in regard to the production of crops, and the proper management of the land. He did not know but that the farmers of the State needed *enterprise*, but he did not believe that it was the number of acres that he cultivated, that made a man rich. The old saying is, "a little farm well tilled." He thought there was a lack of system. Our farmers do not, like the merchants, keep an account of the expense of raising their various crops, and thus be enabled to ascertain which were the most profitable. He thought farmers should take more pains to interchange views with one another, in regard to their interests. Perhaps one obstacle in the way of improvement is a prejudice against book farming.

For the New England Farmer.

CELERY.

BY W. CLIFT.

Mr. Editor:—A correspondent in your December number inquires for the best method of securing celery for the winter. As I have cultivated this plant for the last six years, with very good success, I can give you the results of my experience. It requires more attention than most other vegetables, and the growing of good celery is a much more difficult matter than its preservation. This is the chief difficulty about it, to attend to its wants often, and seasonably.

If you wish early celery you must sow your seed in March in a hot-bed, and put your plants in the trench in June or early in July. If you only care for it late, sow in May in the open ground. Select a moist rich spot for your seed bed, thoroughly prepared. The finer the tilth of the mould the better your seed will germinate. An old mat thrown over the bed, or any light covering of grass or weeds, will aid the sprouting. This covering should be removed, as soon as the plants are well up. As soon as the plants are an inch high, they should be pricked out in a bed of rich mould thoroughly prepared. A compost of muck and night soil, or muck and hen dung, is a very good manure for the bed. The plants should be set in drills, six inches apart, and four inches in the drill. You cannot have good strong plants without pricking out. They should be kept free from weeds, and the soil should be stirred once a week until August.

The selection of a suitable spot for the trenches is a matter of considerable importance. As celery needs a good deal of water, select a spot as near the watering place as possible. Your soil should be two feet deep, and if there is not that depth of black loam you must prepare it in the trenches, for the occasion; you may prepare your trenches for growing two or four rows, as suits your convenience. If for two rows, the trenches should be 18 inches wide, and 18 deep. I have tried various kinds of manure, feathers, hair, night soil, &c. I have obtained the best results from night soil well mixed with loam of charcoal dust—but I attributed this to the fact that it was used in larger quantities, than to any superiority in the manure. The hogs' hair, though used in small quantities, gave very satisfactory results. But almost any manure will do, if it be thoroughly incorporated with the soil, in the bottom of the trenches. If you use stable dung the trenches should be half filled with it, and thoroughly worked into the soil with a fork.

Junius Smith, in the Patent Office Report, for 1845, gives the following directions for setting out the plants in the trench. "The plants should be trimmed about the crown, just at the top of the root; all the young suckers taken off, leaving the plant trim and neat, with all its main stalks. With

a dibble, which should be as large as the handle of a spade, as the roots will now be of considerable size, begin at one end of the trench, with your face toward the other, and set in a single row of plants in the middle of the trench, and not less than six inches asunder; water them well. No teetotaler loves water better than celery. It cannot have too much. The roots of this plant require more room than is generally allowed them, as any one may see when they are taken up for the table.

"Earthing up the plants should be delayed until they have attained a good size; and then it requires care, especially the first time. I always get into the trench myself, and, holding the plant with all its stalks firmly in my left hand, with a short-handled small hoe, draw the earth up around the plant without allowing it to come in between the stalks. When this is done, and the plants thus protected, you may, with a spade, strike off the edges of the trench, and partially fill it. As the plant grows, continue to earth up, and by the 1st of Nov. the plants will be two feet above the level of the earth, and of the size of a man's arm.

"Sometimes, particularly if the season be dry, celery is liable to be attacked by a fly. In that case, you will see the tops of the celery turn brown and wither. The moment that symptom appears, no time is to be lost in calling the doctor, for the whole crop is at stake. The cause of the disease is the sting of a fly upon the leaves. The egg is deposited between the integuments of the leaf, and soon hatches into a small white worm—sometimes visible on opening the leaf to the naked eye, always by the aid of the microscope. If not attended to, the disease descends to the root and the whole plant falls a sacrifice. Amputate every diseased leaf, and early in the morning while the dew is on, sift on to the whole of the plants fresh slaked lime. One such powdering is generally sufficient, but if not, give them another dose, and the first rain that falls will wash the plants clean, and you will probably see them fresh, green, and stretching away toward maturity."

As we have never had any diseased celery to doctor, we give this remedy for what it is worth. The disease is probably induced by drought. As our celery trenches stand close by a ditch where salt water flows, we have tried the brine upon them once a week, and found it gave the plants great luxuriance. We have grown plants a yard long. Wherever a garden is near the shore it will be worth while to try the experiment of salt watering. It is a marine plant, and must have salt in some shape in order to attain perfection. Prof. Mapes recommends salt in the compost prepared for it. He advises to put at least three inches of either of the following composts in the bottom of the trenches.

1st. Well decomposed stable manure, with ten gallons of strong brine made from salt to each half cord.

2d. One cord of peat, turf, meadow-muck and woods earth, which has been previously decomposed by the salt and lime mixture, (3 bushels of lime slaked in water saturated with one bushel of salt) with one hundred pounds of Peruvian guano thoroughly mixed ten days before using."

Celery is a delicious vegetable, and makes an agreeable variety upon the table during winter. Its use is chiefly confined to cities, because it requires some little skill to grow it, and gardeners in the suburbs can make it a paying crop. It might be introduced with advantage to every vegetable garden.

As to the preservation of celery, if you live near a market it is best to leave it to the market-man who sells it, buying only as you wish to use it. We have tried various methods of keeping it in a cellar, but have never succeeded well. Prof. Mapes recommended banking it in moist sand, and this will succeed as well as any thing. If you grow the article yourself you can keep it best in the trenches where it grows. The trench that you design to use first, before the ground freezes solid for the winter, will be sufficiently protected by a covering of seaweed or refuse straw a foot thick. That which you wish to preserve till January and later, should have a little house made over it. If your earthing up is not too high, two wide boards set upon their edges on each side of the plants, and then inclined till they meet at the top, like a letter A, will answer very well. The boards should have a thick covering of old straw or hay, and in mild weather should be left open at the ends for airing. We have fine celery preserved in this way at this date. Last winter we set a crotch at each end of the trench, put a pole upon the crotches, for the ridge pole of the house. Slabs two or three feet long and about half as far apart, formed the rafters. The covering was of seaweed a foot or more in thickness. It kept admirably till spring; you can take enough from the trenches at one time to last a week or two. It will keep fresh for that time in the cellar.

W. Clift.

Stonington, Ct., Jan. 15th, 1853.

For the New England Farmer.

COMPOSTING WITH MUCK.

Mr. Editor:—I would like to inquire of you or some one of your numerous correspondents, the best method of working muck. I use it in the hog-yard and cow-yard in the summer season, and in the winter in my cow stable, on the plan of Professor Mapes; but this requires a great amount of labor. If there is any better way, I should like to know it, as I have a great quantity of muck and wish to work it in the most profitable way.

F. H. Currier.

M'Indoes Falls, Vt., Jan. 8, 1853.

Remarks.—In the first place, we are obliged to our correspondent for his kind expressions in the part of his letter which we have omitted; and in the second place reply to his queries with pleasure.

There are certainly two or three ways at least, in which muck may be used in large quantities at a very little cost above the labor of digging and carting it. As the first mode, we refer friend Currier to Mr. Holbrook's plan, given in full in the 3d volume of the *Monthly Farmer*, page 381. This plan is to fill the drop or sink behind the cattle with muck, which was cleaned out and replenished every morning. His sink or trench was water-tight. Another mode is to cart quantities of the muck into the barn-cellar in autumn, and scatter it over the droppings each morning. This

absorbs the watery parts, prevents in a considerable degree the escape of ammonia, and so mixes the whole as to make it convenient to use, if the long litter is not incorporated with it. The bedding or litter should be kept by itself, and decomposition aided by throwing into a large heap, wetting and overhauling, or perhaps by scattering lime with it.

Where there is no barn-cellar the muck may be mixed with the manure as early as possible in the spring, and frequently overhauled.

A third method is to pile up the muck and mix with lime, ashes, or guano. When guano is used, let it be with the muck alone. When the muck and lime only are used, Dundonald says, the object is best attained by mixing newly-made and completely-slacked lime, with about 5 or 6 times its weight of muck which should be moderately wet. By this mode of conducting the process, a soluble saline matter will be produced, consisting of phosphate and oxalate of ammonia, which will be beneficial on most soils.

Mud of any kind should not be plowed in when recently dug; it should be composted with lime or putrescent manures, or lie exposed to a winter's frost, which will destroy its tenacity, and reduce it to a fine powder, that will serve as a valuable absorbent of feculent matter and urine, or it may be spread upon the field like ashes. But if it be plowed into the soil, before it has undergone fermentation by the action of salts, or has been mellowed by frosts, it will remain in lumps in the earth for years without much avail.

THE MILK BUSINESS.

We give below a copy of the petition to be presented to the Legislature as adopted at the great Milk Convention, at Cochituate Hall, in Boston, on Wednesday, the 26th Jan. In addition to this notice copies of printed petitions will be sent to gentlemen in various parts of the State. It is to be hoped that the towns will hold organized meetings, adopt the terms of the petition, sign them numerously and return them to the Legislature, or to the subscriber, who is one of the Committee chosen to receive them. SIMON BROWN.

Boston Jan. 26, 1853.

To the Senate and House of Representatives in General Court assembled.

Your petitioners respectfully represent that the Farmers of this Commonwealth are deeply interested in the production and sale of *milk*—that the number of cows kept within our borders is about 150,000, producing annually, a quantity of milk, valued, at the low rate of 3 cents per quart, and allowing 4 quarts per day to each cow, at the sum of *six millions five hundred and seventy thousand dollars a year*—that milk for the markets, is generally delivered by the producers in *tin cans* furnished by the purchasers, said to contain a specified number of quarts—that many of such purchasers still continue to use the "*ale quart*," which is not recognized by the statutes now in force, while others use the *wine* quart, which is the measure prescribed by law—that great inequality, injustice and fraud, both to the producers and consumers, results from such confusion of the standard of measure—the cans varying from 8 1-4 to 8 3-4 quarts.

Wherefore, they pray, that it may be prescribed by law, under adequate penalties, that no *cans* shall be used in the delivery or sale of milk, except such as *shall be legally sealed by the town or city sealer of weights and measures*, and *marked with a figure or figures* denoting the capacity of such *can* in quarts by wine measure—with a proper allowance, to be by law prescribed, for the reduction of the bulk of the milk in cooling.

And your petitioners as in duty bound will ever pray.

For the New England Farmer.

EXPERIMENTS—BEES.

MR. EDITOR:—Although an entire stranger, yet, the fact that I am a subscriber and constant reader of your excellent paper, and that I am deeply interested in the calling which you so ably advocate, is to me a sufficient apology for this unceremonious introduction. Living, as we do, in an age which gives to the press an influence so great as to be almost, if not quite, beyond our comprehension, it is not strange that we should form a strong attachment to such papers as advocate principles and advance measures similar to our own.

Being a lover of nature, and a deeply interested observer of the various robes which she adorns herself with during the different seasons of the year, you may easily imagine with what unbounded pleasure I peruse such articles as allude to this interesting, instructive, and truly elevating subject. The grey and gloomy aspect of winter, the green of spring, with the sunshine of summer, and the golden tints of autumn, each, and all, tend to elevate and improve the mind, and if rightly received, gladden the heart and make man a truly happy being.

As I peruse the articles of your correspondents I often have reason to regret that farmers do not conduct their farms in such manner as to secure at the end of each year, a knowledge of the loss and gain, not only of each experiment, but of each farming operation. The satisfaction of this is known only to those who have tried it. It is my opinion that not one farmer in five knows how much it costs him to raise a bushel of rye, corn, wheat, or potatoes, nor in fact, any of his produce, yet how important it is, not only to know how much each costs, but how each can be produced the cheapest, and at the same time keep his farm in an improving condition. When an experiment is tried, not one in twenty is conducted in a manner best calculated to secure the desired result; for example, a field of corn fertilized with a new kind of manure, is no experiment unless a part of the field is fertilized with a manure, the *fertilizing qualities* of which are fully known; yet how seldom is this the case, and in fact how often is it the case that the *whole* field is used for an experiment; and again when the results are laid before the public, the field was manured with thirty loads, leaving you to guess whether they were drawn by dogs, horses or oxen. We ought to have the number of cords, and the price per cord, then we shall have something tangible.

I am deeply interested in the Honey Bee, and think their habits are as yet but little understood. They are yet in their wild state, but that they can be domesticated to a much greater degree than has been supposed, I have from experience every reason to believe. Should it be acceptable, I may at some future time give you the results of my labors. For the three past years I have cleared five dollars per year on each swarm. For ten years I have not lost a swarm by the bee moth; in fact, I have lost only two swarms, one winter killed in a tight hive, and one killed by the ants, which, by the way, are an insect deserving more attention than they have ever yet received. I am resolved to study their habits and ascertain their good and bad qualities. That they do some injury I know,—that they do more good than injury, I think an investigation will compel us to admit.

Hingham, Jan., 1853. EDMUND HERSEY.

REMARKS.—We shall be happy to receive a condensed account of your experience with the bees.

CONVENTION OF MILKMEN AND FARMERS.

A convention of the Milkmen and Farmers of the Commonwealth was held in Cochituate Hall, on Wednesday, the 25th Jan., for the purpose of adopting measures to secure the adoption of wine or legal measure throughout the State, and to take such other measures as will promote the interests of the trade. The Convention was quite large, there being three or four hundred present, and among the members were representatives of all sections of the State.

The Convention was called to order at 10½ oclock, and Mr. Simon Brown, of Concord, was chosen President.

On motion of Mr. Barnes, of Waltham, the proceedings of the previous meetings at Brighton were read by Benjamin Wellington, of Waltham.

Mr. S. G. Wheeler, of Concord, and William S. Lincoln, of Worcester, were elected Vice Presidents.

Mr. BROWN made a few remarks, showing the necessity of carrying out the object for which the Convention had assembled. He said that in his own town (Concord) the difference of the income from milk as measured by wine or ale measure, amounts to $18 75 per day. This amount is taken from the farmers wrongfully by the present system, and he was in favor of a thorough reform. In conclusion he announced the Convention as ready for business.

Mr. WHITNEY, of Stowe, thought the Convention might aim at too much and accomplish but little. He thought it should confine itself to the one object of securing the adoption of the wine, or legal measure. What is wanted is that the can shall be by law declared a measure, and it will then be obliged to be sealed. With regulating the price of milk or the washing of cans, he thought the Legislature should have nothing to do. The Convention should memorialize the Legislature to pass an act requiring cans to be sealed; the members should then petition for the act over their signatures; and then petitions should be circulated among the producers, pledging themselves not to sell by other than the legal measure. The gentleman stated as the result of a careful calculation, that by the measure proposed, the same quantity of milk which has heretofore sold for $100 will sell for $122 in wine measure.

Mr. HOSMER, of Concord, advocated the passage by the Convention of a resolve that they would have the same price by the reduced measure as by the large measure.

Hon. SETH SPRAGUE, of Duxbury, moved that this Convention concur in the resolutions passed at a former Convention, adopting the wine measure as the standard for milk.

Mr. WHEELER, of Concord, said the business of the Convention was to regulate the interests of four classes—the milk grower, the men who buy it from the grower, the retailer, and the consumer. The adoption of the wine measure and sealed cans he was satisfied would do this. With regulating the price of milk the Convention had nothing to do.

Mr. SPRAGUE argued that no combination to fix the price of milk would in the end be successful, as it would be regulated by the demand. He believed the plan of substituting wine measure would be adopted generally by all producers.

Mr. CHAPIN spoke of the great necessity of having sealed measures, and adduced as one argument the fact that bills for milk sold by other than the legal measure could not be collected by law.

Mr. ROBINSON, of Dorchester, thought that if the Legislature refuse to grant the petition proposed, that the producers and traders should assemble and regulate the matter for themselves.

Mr. MARSH, of Cambridge, said that he supposed the object of the convention was to adopt wine measure, but it appears that it is to raise the price of milk. He dissented from the charges made against the retailers of milk, in furnishing cans which hold more than they are marked. He believed the whole trouble laid with the farmers themselves. They themselves reduced the price—when they got a new market in Boston by means of the railroad—and now when a pinch comes, they start the movement. He thought some farmers as well as milkmen would be found guilty of certain delinquencies, such as "milking the black-tail cow," &c. He was aware that the farmers did not get enough for milk. In four years he lost in the milk business $1000, and he now wants to be able to make it a paying business. He did not believe the people at Boston would refuse to pay a good price for milk if they could have a good article, instead of milk and water.

Mr WHEELER of Concord defended the farmers, and urged that the fraud in the matter consisted in the retailers furnishing the wholesale purchasers with ten quart cans and paying for but eight.

Mr. NASH did not believe the Legislature would act in the matter, because the farmers have the matter in their own hand, and if they say to the purchasers bring us sealed cans, these cans will come into use.

Mr. LAKEMAN, of Charlestown, thought the milkmen who attempted to impose poor milk upon the women of Boston would get his pay as he went along.

Mr. BROWN from the Committee to petition the Legislature, submitted the form of petition which had been prepared, and which may found in another column.

Mr. Wm. S. Lincoln, of Worcestor, advocated the confining the request to the Legislature to the sanctioning of a sealed can; and that the members themselves resolve that they will, after the first of April, adopt the wine measure in retailing. If farmers cannot sell their milk at paying rates they had better make butter of it.

A motion was made to amend the resolutions, so as to make the new measure go into effect on the first of April, instead of the 1st of February. This was opposed by Mr. Barnes of the Business Committee, as it would allow persons disposed to make trouble, time to supply themselves elsewhere. The motion was subsequently withdrawn.

After a long discussion, the resolutions of the former Convention were taken up and adopted separately. The third was so amended as to make the time of carrying the new measure into operation the first of February. The resoluti ns were then adopted as a whole unanimously.

The Convention then at half-past two, adjourned. —*Journal.*

For the New England Farmer.

FARMERS' LIBRARIES.

BY WILLIAM F. BASSETT.

Mr. Brown:—With your permission, I will venture to suggest to your subscribers the propriety of "Farmers' Libraries" in connection with "Farmers' Clubs." The advantage of the latter has been frequently urged in your columns, and I think the former should be an inseparable accompaniment to every town club. I know not how many such institutions have already sprung into existence within the extensive circle of your "reading room;" but I am certain that there are few such in this section, and I think I may safely add, but few permanent public libraries of any kind. I say permanent, because I am aware that school libraries have, by legislative aid, been formed in large numbers in various places, but which as far as my information extends, contain within themselves the elements of destruction.

They have no provision for the acquisition of new books; and embracing a space quite too limited, the few books which they contain are soon read and they then become "old stories;" and beyond this, which is an item of much importance to the farmer, they rarely contain agricultural works.

Agricultural books having comparatively a limited circulation, and consequently being more costly, I was about to say, places them beyond the reach of the small farmer's purse, but experience whispers, "they fill the purse faster than they drain it;" well, at any rate, their cost is such as to deter many from obtaining them, and thus withholding much valuable knowledge which every agriculturist ought to possess.

Now, every one knows the superiority of associated over individual action in other matters pertaining to the interests of the community, but I have good reason to believe that few realize the advantages to be derived from it in connection with the subject before us, or if they do, they are lamentably negligent of both duty and interest.

Now I do not wish any farmer to buy any less amount of agricultural reading, either in books or periodicals, but if in addition to your present literary expenditures you would each contribute something to a common fund for common benefit, you might, in my opinion, derive an almost incalculable benefit from it.

Let us illustrate. Suppose forty individuals wished to obtain each two books, which would cost them three dollars to each person; if they went on to purchase them separately, they might, perhaps, all buy the same works, and there would be only two different works among the whole; but let those forty persons unite their funds and the result would be eighty different books of equal value, without making allowance for discount on large purchases which would make the disparity still greater.

Perhaps some will say they cannot afford to spare so much money; that they require every cent to support their families or pay their debts; but stop a moment, good friend! are you aware that your duty to your family requires you to supply food for their minds as well as their bodies, and is there not some little articles, tobacco or tea for instance, that cost you more than double that sum, and which you would be better without!—Then it is only for one year, and a trifling annual outlay of say fifty cents, afterwards, will swell your library to hundreds, and perhaps thousands of volumes comprising every agricultural work of value and histories, biographies, and travels enough to furnish a useful and agreeable occupation for every leisure moment of yourself and family.

Don't hesitate, then, but go immediately and tell your neighbor you are determined to have a town agricultural library, and request his assistance.

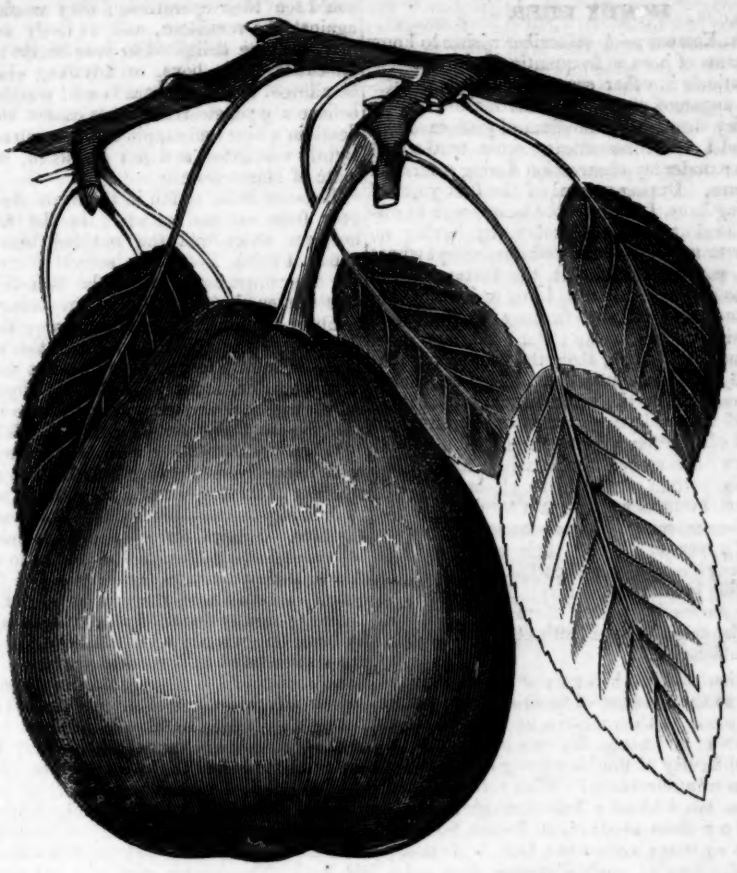
W. F. B.

Ashfield, Jan. 17, 1853.

Remarks.—Excellent suggestions. You cannot do better, friends, than to act upon them at once. By way of encouragement to the writer, we will say that in some towns the work is already begun. Where town libraries are already established, the farmers are requiring scientific books upon agricultural subjects; some of the farmers' clubs are also gathering libraries for their own use.

Any town may by statute raise one dollar on each poll the first year to form a library, and twenty-five cents a year afterwards, to increase it.

The Horticulturist.—This popular periodical has been transferred from Albany to Rochester, and is published by James Vick, Jr., P. Barry, Editor. The price is to be $2 a year, instead of $3, as heretofore, or $4 with colored plates. The January number is illustrated with a beautiful engraving of the Sheldon pear, and half a dozen outlines of other pears, with a view of the residence of the late A. J. Downing, and numerous points of interest in the beautiful grounds about it. The number is filled in every respect with useful and pleasing matter, and we heartily commend it to every lady and gentleman of taste in the country. Such a work, widely extended, must have an important influence not only on the general aspect and prosperity of the country, but on the moral condition of the people.



URBANISTE PEAR.

The original of the above beautiful portrait was plucked from a tree in the garden of Col. WILDER, of Dorchester, and furnished us by him as a fair subject to be engraved. In the description below, which we take from Downing, it appears that the Urbaniste compares, nearly, in deliciousness of flavor, with "the old Doyenne or Virgalieu." These are other names for the old and favorite St. Michael, a pear better known, perhaps, than almost any other in this region. The above engraving is a very perfect figure of the fruit, and branch on which it hung, and is much more beautiful in its outlines than any representation we have seen in the books.

"The Urbaniste is a fruit for which we confidently predict the highest popularity in this country. In its delicious flavor it compares, perhaps, more nearly with the favorite old Doyenne or Virgalieu, than any other fruit, and adds, when in perfection, a delicate perfume, peculiarly its own. Its handsome size and appearance, and remarkably healthy habit, commend it for those districts where, from neglect or bad soil, the Doyenne does not flourish. The tree is a moderately vigorous grower, and though it does not begin to bear so early as some of the new varieties, it yields abundant and regular crops, and gives every indication of a long-lived, hardy variety. For the orchard or garden in the middle States, therefore, we consider it indispensable. With so many other fine sorts, we owe this to the Flemish, it having been originated by the Count de Coloma, of Malines. It was first introduced into this country in 1823. Young shoots upright, short-jointed, grayish yellow.

Fruit of medium size, often large, pyramidal obovate. Skin smooth and fair, pale yellow, with gray dots, and a few russet streaks. Stalk about an inch long, rather stout, and inserted in a well marked or rather broad depression. Calyx small, closed and set in a narrow basin, which is abruptly and rather deeply sunk. Flesh white, (yellowish at the core,) buttery, very melting and rich, with a copious, delicious juice, delicately perfumed. Ripens from the last of September till the end of November, if kept in the house."

For the New England Farmer.

HONEY BEES.

MESSRS. EDITORS:—A subscriber wishes to know why swarms of bees so frequently die in winter—and sometimes in other seasons of the year, without any apparent cause. Permit me to reply to this inquiry through the medium of your excellent paper, and I will communicate some truths that have fallen under my observation during a term of thirty years. During several of the first years of my keeping bees, I fell into the same error so often committed at the present day, by having no ventilator to my hives during winter, except where the bees pass out and in at the bottom of the hives; the consequence was, I lost many valuable swarms as I supposed, by freezing to death. I tried to winter them in the cellar; the dampness would mould the comb, then the bees would become sickly and frequently die. I then concluded to let them stand in the bee house and take their chance. I watched year after year to ascertain what kind of weather affected them most; I found when there came snow attended with wind drifting around the bottom of the hives closing the entrance, such swarms were certain to die by suffocation before morning. I have known several instances of a person's losing their entire stock of bees in a *single night* by suffocation, caused by the snow drifting in around the hive. I have also lost valuable swarms by a few dead bees dropping down inside, closing the mouth of the hive so as produce suffocation.

My opinion now had become completely changed in regard to the manner of treating bees during winter seasons. I then made a new set of hives with chambers and honey drawers to fit and to obviate the difficulty of the bees being smothered in future from *whatever* cause. With a three-fourth inch centre bit, I bored a hole through the front side of all my hives about eight inches from the bottom, fixing wires across the hole horizontally inside of the hive at such distances that a bee could not quite get through. This I called the ventilator. The reason why they should not pass out and in at the ventilator is this:—

Bees are notorious robbers, and a hive can better defend themselves, if there is but one point where they can be attacked. I put all young swarms that come out into this kind of hives; the bees would close up the ventilators in summer with wax. About the first of Dec. I would clear out the ventilators with the point of an awl and they would remain open during the winter. I also raised each hive from the bottom board, not quite high enough to allow the bees to creep out, by putting a small wooden wedge under each corner of the hive; if the snow blew in about the hives closing them ever so tight at the bottom, the ventilators would supply the swarm with sufficient air to prevent suffocation. I put no straw about my hives—used no quilts to cover them—yet my entire stock of bees would stand the severest winter that ever blew. Other bee masters in the neighborhood, who had been in the habit of putting their bees in the cellar, seeing how mine wintered, have treated their entire stock in like manner, and have not lost a single swarm.

During the severest weather, when the thermometer indicated ten, sometimes sixteen degrees below zero, I would examine my bees at sunrise. As the sun shone in through the ventilator, I could see their operations; they would be close against the ventilator, and as lively as in summer, seeming delighted to breathe the fresh air. No cattle, fowls, boys, or anything else, should be allowed to disturb bees in cold weather; and I believe a good swarm of bees cannot be frozen to death in a hive well supplied with comb and honey, rightly ventilated, and not disturbed, in the climate of Massachusetts.

Bees are liable to fail in the warm season of the year from various causes. In the first place, however short-lived the working bees are, the queen, I think, lives to be several years old; yet the time must come when she will die. If her death takes place in winter, there being no brood comb in the hive, however numerous the swarm, they will not be able to provide another sovereign. (I never knew a hive of bees that lost their queen in the winter, make any effort to supply themselves with a new queen, except in one instance.) [See *Boston Cultivator*, of April 24, 1847.]

When warm weather returns, this swarm will remain inactive in the hive and dwindle away, till the bees of some other hive step in and take away their honey, or the bee moth takes possession of the hive. I have lost as many as four hives of bees occasioned by losing their queen in winter.—About three years ago, in February, I found the queen on the bottom board of one of my best hives apparently dead. I placed her in my hands; by breathing warmly upon her for a few minutes, she was restored to her usual activity. I opened the chamber of the hive where she belonged, removed the communication cap and placed her among the bees. In March, I found her again on the bottom board, apparently lifeless. I warmed and returned her to the hive as before. About the first of April, I picked her up a third time, but the vital spark had fled. I examined her through a magnifying glass, and found her antennæ gone, three of her feet worn off; no doubt she died of old age. The swarm remained inactive in the hive till some time in the summer, when the bees of another hive took away their honey.

Another reason why a hive of bees may run down in summer, is this:—When a hive of bees becomes pretty numerous in the spring, they go to work and erect four or five royal cells; in each of these cells may be found a young queen; they all hatch about the same time and send out a swarm accompanied by the *old queen*, leaving the young queens in the old hive. If we go some morning about eight days from this time, and place the ear against the old hive, and hear the young queens piping, (so called) we then expect a second swarm out of the old hive—which takes place from nine to fourteen days after the first swarm. Sometimes there will be a third swarm. Now it occasionally happens that two or more queens go out with second or third swarms; (I have seen three;) when this happens, they may light in two or three different places, each bunch of bees having a queen; they should all be collected and put into one hive. Sometimes all the young queens will go out of the old hive with the second swarm; (oftener with the third swarm;) in this case all the queens but one will be put to death during that day or the night following. Now the old hive being destitute of a queen, and but few workers, will run down in the course of the summer (as described in the case

where a hive lost their queen in the winter.) I have lost several old hives of bees in the manner last described.

I have said second and third swarms are always accompanied by young queens. Now the young queen in the course of a few days goes abroad (it is supposed to meet the male on the wing.) When she returns, not being accustomed to leave the hive, she is liable to make a mistake and enter a wrong hive, especially if there are other hives on either side resembling her own; she is immediately seized and put to death.

A few years ago I found one of my young swarms in great commotion just before dark; they were forcing an entrance into every hive in the bee-houses, notwithstanding the strong exertions made by every hive to keep them out. They were making the greatest effort to enter a hive standing next their own, contending manfully till it was so dark they could no longer see to fly. It required no effort on my part to imagine the *cause* of all that was transpiring. Early next morning I went in search of the lost queen. She had entered the wrong hive where her subjects were making the most diligent search the night before. After being put to death she was thrown upon the ground beneath the hive. Now this young swarm having lost their sovereign before there was any young in the hive, soon made their abode among the other swarms. I have known other young swarms broken up in like manner. To prevent other similar occurrences I have my hives painted different colors, making such a contrast between them that the bees soon learn to know their own. A. KILBURN.

Lunenburg, 1852.

REMARKS.—We are obliged to our correspondent for his full account of the cause of death among bees in the winter. It was received last February, and just after we had two or three shorter articles on the same subject, and found it more convenient to insert them. We are often obliged to defer long articles when they are really much better than some of the short ones which we insert.

A BIRD CONVENTION.

We witnessed a few years since, a congress, or convention of birds, the character of which was inexplicable, and is unexplained in all ornithological works. We question whether Messrs. Audubon or Wilson ever saw the like, for if they had they would have deen quite likely to have made a note of it. Spending some days at a friend's house in Wyoming county during haying time, we were among the mowers, one of whom, with his scythe, cut in twain a large spotted adder, or milk snake, the parts of which he tossed over the fence into the public highway. In a few minutes, birds began to collect upon the fences on either side of the dead snake, and within one hour there was a large flock composed of almost every variety of birds of our forest. It was truly a mixed assemblage; sitting upon the same rail were birds that we seldom, if ever see in so close proximity, twittering, fluttering, singing, as if they were having a jubilee.

Occasionally they would leave the fences, light in the road, and form a hollow square, in the centre of which would be the body of the dead snake. The scene continued about two hours, when the birds mostly returned to their haunts in field and forest.

It was as if a common enemy had been slain, and they were celebrating the event, for their demonstrations were joyous ones—had none of the appearance of funeral obsequies. The species of snake to which the dead one belonged, fascinate birds, and thus make prey of them—they break up their nests, devour the eggs and unfledged young ones;—do not these facts furnish a solution of the mysterious and singular gathering? But by what silent and unseen agency did the news go out to all the haunts of these birds in woods and meadows, bush and brier, orchards and gardens, and so soon effect a gathering so numerous and incongruous.—*Rochester Union.*

FARM ACCOUNTS.

At a recent meeting of the *Concord Farmers' Club*, the question for discussion being *Farm Accounts*—

Dr. REYNOLDS said, every farmer would find his advantage in keeping a debt and credit account, not only with his male and female help, but with his cows, oxen, horses, hogs and sheep. He should charge each animal, or each lot of animals, with their cost, the expense of keeping, losses by disease, injury and death; credit them with their increase, milk, butter, cheese, labor, wool, mutton, pork, beef, product of sales when sold alive, &c.

In the same way he should keep an account with each field, charging it with its value, taxes, manures, and labor expended upon it, and giving credit for crops and improvements. Thus he would know his profit or loss from year to year; what crops and what animals are most profitable; would benefit by his experience and might have accurate information for his neighbors.

SIMON BROWN said such accounts might be easily kept: all that was wanting was an effort to begin. He hoped they would all begin on the first of Jan. Each one might keep such a journal as he pleased. He has for years kept a journal in which he not only kept his accounts with his help and his neighbors, but in which he has noted the time when the birds appear and depart, when the blossoms open, when he planted his ground, how much seed he sowed, and a variety of incidents of domestic as well as of a philosophical nature. We are creatures of habit; if we once get into the way of keeping such a record we shall find it easy and pleasant. He also spoke of the moral effect. It would make a man not only a better farmer but a better man, and better citizen. He would know *himself* better, as well as the state of his affairs, and would have more courage to engage in the conflicts of life.

ELIJAH WOOD, Jr., said he had written much more since he joined the club, than ever before. He devoted at least one evening a week to writing and reading. It might be easily done if we would set about it. If he raised a good crop he recorded the amount and the mode of cultivation. Farmers

should keep an accurate account with their dairies. This might be done with more ease than with their crops. He intended to write more than he ever had done, and he would do it for his own improvement, if for no other reason.

Wm. D. Brown had kept a journal and daybook together in which he noted the day's work, the state of the weather, the state of the season, the times of planting and maturing of crops, of commencing and finishing haying, and such incidents as interested him at the time. He wrote something in this book every day—and he thought every one might steal time to do this.

J. B. Farmer spoke of such journals as valuable meteorological registers.

Dr. Reynolds spoke of them as historical documents of great interest to posterity. What would he not give for such a record kept by our fathers for 50 years past. They would contain a history of our families and of the town, intensely interesting not only to our posterity, but to the future historian.

For the New England Farmer.

A QUERY.

Mr. Editor:—In the "Farmer's Fireside Talk" of your Essex correspondent, is the following remark: "If the stalk is returned and plowed in, in the fall or spring, the ground receives back nearly the value it has given out. It receives the *same kind* it gave out; and I think more in amount of fertilizing matter than from a cord of stable *matter*." I suppose this last word should be *manure*, when it would read "stable manure." It is well known that one crop requires a larger amount of one particular mineral substance than another, and that soil "gives out" to one crop more of this mineral, than it does to another. The latter may require more silex than the former. Now if a crop requiring a larger amount of lime is grown on a field, the soil is proportionably exhausted of lime. Suppose this crop to be corn, and that you wish to return to the soil the lime which it has "given out" to the corn. Certainly you must return the "estover" and "plow it in," or return it in some other way. But I would ask your correspondent, or "the man I spoke of," if the manure, liquid and solid, produced by feeding upon the "estover of an acre," would not return to the ground "nearly the value it has given out" of mineral matter! Does not the soil receive in this way, the "same kind" that it gave? I suppose that mineral substances, as lime, silex &c., are not digested in the stomach of the animal, and that only a small amount of them is taken into the circulation, but that they pass off in the dejections, and may thus all be returned to the soil, and the "estover" be used at the same time as food for the stock. Is not the "same kind" as certain to be returned to the soil in this way, as though the stalk were plowed in, or burned, and the ashes returned to the soil? The estover is, when well cured, very valuable and healthy food for cattle, and if it can be made to feed the *stock first*, and then feed the next crop equally well, it will be doubled in value—a matter of some importance.

Jan. 1, 1853. J. R.

For the New England Farmer.

"THAT IS MY HOME."

BY A. G. COMINGS.

Many a farmer manages in such a way that neither his sons nor his daughters can take any pleasure in directing the eye of a stranger to the family dwelling, and saying, "That is my home."

It is not in the erection of costly and temple-like houses, or ornamenting other buildings with much profitless expense, that "home" is made most beautiful. These costly decorations may appear very splendid at first, but they are of that character which loses beauty instead of increasing it. The mind of youth is reaching forward, and is most pleased with that kind of ornament which every day grows more beautiful.

Most men, in building houses, expend much money in making the house showy. One, two, or five hundred dollars spent in this way is a common item in building. But this is all just "paying too much for the whistle." Such beauty only pleases while it is new. The second look at it has no interest. The eye ceases to behold with pleasure whatever, from its fixed character, becomes familiar and established. Simplicity, order and neatness, constitute the sum of all beauty, in everything which is of a fixed character.

Let the farmer adopt a different course, and plant around his neat and simple dwelling, one, two or five hundred dollars' worth of trees, shrubs, vines and flowers, and what a world of beauty and attraction it would present. These are "things of life," and their beauty will be progressive.—When the eye of a stranger shall rest upon it, he will exclaim "how beautiful!" and that lovely daughter, whose presence always gives joy and gladness to the home circle, will be happy always, when she thinks "that is my home." And that noble-spirited young man who would have left the homestead years ago, but for these attractions, will feel a conscious elevation of character, a growing greatness, inspired by the objects with which he is surrounded. It is certainly true that the character of men is shaded by the objects which constantly engage their attention and care.

There is not another class of men in the world to whom is granted such a privilege of uniting beauty with worth, pleasure with interest, as the farmers. And the most attractive beauty, too, is that which will grow more beautiful and more profitable at the same time.

The attractions of home are also full of moral power, and social refinement. The eye of love never sparkles with more brilliancy than when it is surrounded by the blandest beauties of natural scenery. Earth affords no happier spot than where the throbbing, anxious, hopeful spirit of youth is quieted and satisfied.

The farmers of New England may refuse to gratify their sons and daughters, by attention to the rural scenery about their dwellings, and see their sons and daughters become "anxious for a trade," and their daughters determined on "going to the factory," or they may see them wedded to home as to an earthly paradise. And taking up this idea of paradise, it is proper to remark that in the scriptural description of Eden's paradise, as in every vision of poetic thought, the abode of peace and happiness is in the midst of rural scenery.

It is one of the greatest matters of importance, in relation to society, morality, religion, or even patriotism, that our young men should be more attached to agriculture and its kindred arts; to home and its associations. This will never be brought about by accusing the young men of being reckless and unsteady. The mind of a noble youth is to be captivated, not chained.

To look upon a blighted and leafless tree, and upon a family where the young men have fled from home to trade or speculate, and the young women to the factory, leaving matron and sire to die alone, produces a similar sensation.

To carry our agricultural matters to the proper and desirable elevation, we must have a deep interest existing in the minds of the intelligent and enterprising sons of farmers.

To have our young men attached to home, their beautiful and lovely sisters must be there, and happy in the circumstances which surround them. A home where the girls are not contented, has a cold and vacant air, like an old bachelor's hovel. They fill a large place in the world of life. And the very tone with which a young woman says "That is my home," describes the scenery without and the spirit within that dwelling.

There is a growing complaint that young people are becoming indifferent to home and parental love. It is of little use to grumble and complain. The remedy is an easy one. Let the young be supplied with well chosen, interesting and instructive reading matter, every week, and let attention be given to the surrounding scenery, according to the common idea of all ages, and God will bless the bowers and smile on those who dwell happily among them, and age will renew its youthful joys, and the rose and the myrtle will beautify each other, and love and hope and joy shall be there; while birds shall sing in the spring time, a cooling and refreshing shade be felt in summer's sultry day, a golden harvest be gathered in autumn, and a happy group and a bountiful board within and the merry bells without will cheer up the wintry day, and the good old song of "Home, sweet home," shall warble with melting melody.

Mason, N. H.

How they Used to Plow.—In some parts of Scotland, in former times the plows used to be drawn by four horses abreast, and required the assistance of three men. The business of one man was to drive. For that purpose he placed himself between the middle horses, with his face towards the plow, to guide it straight, and in this position he stepped backwards with the reins in his hand. Another walked behind the horses with a *cleeked* staff, which he fastened in front of the beam, and by means of it regulated the depth of the furrow by raising or lowering the plow, as occasion requires. The plowman followed with hold of the stills; and in this formidable and ludicrous manner they repeated their attacks on the soil.

In harvest, a basket machine was placed on horseback for carrying home the grain; and persons were employed on each side with forks to keep it in a proper poise. It is said that the practice is yet to be met with in Galloway.

Many practices subsisting even at this day in Ireland are still more ridiculous. Mr. Arthur Young tells us that in Donegal he has actually seen horses plowing by the tail!—*Exchange.*

ORGANIC ELEMENTS.

Vegetation is composed principally of the four organic elements, yet the relative proportions in which they occur in plants, are by no means uniform. Still they are all alike, equally indispensable to the growth and development of the system; they are by no means necessary in an equal degree. In most crops, when artificially deprived of their moisture, an analysis of the remaining solid parts ordinarily gives from forty to fifty per cent. of carbon—nearly or quite one-half of the actual weight—while the oxygen constitutes not far from thirty-three per cent., the hydrogen five, and the nitrogen seldom more than two and a half. This is very nearly the relative proportions in which these organic elements exist in most of the farm products applied for the sustenance of animal life. In one thousand parts their proportions are as follows:—

	Hay from young Clover 3 months old.	Oats.	Clover Seed.	After-math Hay.	Peas.	Wheat.	Hay.	Potatoes.
Carbon,	507	507	494	471	465	455	458	441
Hydrogen,	66	64	58	56	61	57	50	58
Oxygen,	389	367	350	373	401	431	387	459
Nitrogen,	38	22	70	24	43	34	15	13
Ash,		40	28	100	31	23	90	50
	1000	1000	1000	1000	1000	1000	1000	1000

The quantity of water present in most vegetables is generally large. Exposed to a temperature of 230° fahrenheit, the loss was as follows, viz:—

1000 parts of Potatoes	lost	722	parts of water.
" of Wheat	"	166	"
" of Hay	"	158	"
" of Aftermath Hay	"	136 to 150	"
" of Oats	"	151	"
" of Clover Seed	"	112	"
" of Peas	"	86	"

So far as regards the form, or state of combination in which carbon, hydrogen, nitrogen and oxygen, minister to the growth of plants, I refer the reader to the following extract from a lecture delivered by Prof. Johnston upon the subject. He says:—

"Neither of these elementary bodies is likely to enter directly, or in a simple state, into the circulation of plants. The former (carbon) being a solid substance, and insoluble in water, cannot obtain admission into the pores of the roots, the only parts of the plants with which, in nature, it cannot come in contact. The latter (hydrogen) does not occur either in the atmosphere or in the soil in any appreciable quantity, and hence, in its simple state, forms no part of the food of plants. Oxygen and nitrogen, again, both exist in the atmosphere in the gaseous state, and the former is known to be inhaled, under certain conditions, by the leaves of plants. Nitrogen may also in like manner be absorbed by the leaves of living plants, but if so, it is in a quantity so small as to have hitherto escaped detection. The two latter substances (oxygen and nitrogen) are also slightly soluble in water, and, beside being inhaled by the leaves, may occasionally be absorbed in minute quantity along with the water taken in by the roots. But by far the largest proportion of these two elementary bodies, and whole of the carbon hydrogen which find their way into the interior of plants, have previously entered into a state of mutual combination

—forming what are called distinctive chemical compounds. Before describing the nature and constitution of these compounds, it will be proper to explain, 1° the constitution of the atmosphere in which plants live, and, 2° the nature of chemical combination and the laws by which it is regulated."

For the New England Farmer.

FARM WORK FOR THE CENTURY.

BY H. F. FRENCH.

MY DEAR BROWN:—You probably are aware that a bill is pending before the Legislature of New Hampshire, providing for a Board of Agriculture and a Commissioner. Its provisions are similar to those of the Massachusetts Act, the Commissioner being substantially the same as the Secretary of your Board.

Again and again, the question has been asked, what is the use of such a Board, and what are to be the duties of such a Secretary or Commissioner? Perhaps the views of others may differ from mine, as to the reply to these questions. If they do, there is so much the more reason that some one should undertake to be definite, so that a full discussion of the subject may be had, and that we may enlighten the ignorant, and learn from the wise.

I propose briefly to suggest some among the many things, that are *waiting to be done* in New England, under the direction of Boards of Agriculture for its advancement; and for the sake of perspicuity, I will arrange my ideas like an old fashioned sermon, under distinct heads. The Secretary or Commissioner should give his early attention—

I. To the *formation of farmer's clubs* in every town, holding out as an inducement to the members of them, the idea that they would be especially remembered in the distribution of all publications, whether of the patent office or of transactions of the State Board or county societies, and of seeds and plants, which might come under his control. The officers of these clubs would be his reliable correspondents and assistants in all his movements.

II. He would deliver *lectures* at meetings of the town clubs, or county societies, of a familiar and practical character, and engage others in *discussions*, in the way best calculated to develop the talent and knowledge of the farmers themselves. His lectures would involve the *mechanical* treatment of the soil, as by plowing, harrowing, subsoiling, under-draining and the like—the *chemical* treatment of it by manures of various kinds, as guano, the phosphates, lime, salt, and the various composts, as well as barn manure—the adaptation of the various kinds of soil to different crops, whether of grain, grasses, roots or fruits.

In short, such lectures might touch upon any branch of knowledge, whether of a scientific, or practical nature, which might be best adapted to the occasion.

III. He would open a *correspondence* with all the leading Agricultural and Horticultural societies of this and other countries, with the heads of our Agricultural Department at Washington, (when we get one!) and with distinguished agriculturists, so as to act in concert with the *progressive minds* of the world, and be kept constantly informed of the attainments of others.

IV. He would be prepared with accurate *analyses* of the various products of the earth, as of wheat, corn, the grasses and roots, as made by the most reliable chemists, at home and abroad, showing how these products are affected in their constituent elements by the soil on which they grow.

He should have, also, analyses of specimens of the various classes of soil, as of the pine plain, the peat and swamp mud—the granite soil of the hills, the alluvial lands of the rivers, and the various clays, so as to give as accurate information as the nature of the case admits, of the peculiar adaptation or deficiencies of each for the growth of particular crops.

The range of investigation in this direction is literally boundless, for although nature is ready to disclose her mysteries to the earnest student, new depths are constantly revealed.

V. He would institute systematic experiments, upon an *experimental farm*, which some public spirited man will present to the State, if not otherwise provided. He will thus be able to settle many disputed points, which ought to have been settled years ago.

VI. He would engage in an *agricultural survey* of the State, taking, perhaps, one county each year, in the manner, somewhat, of the surveys made of Seneca and Madison counties, in New York.

Such a survey should show, among other things, 1st, The *history*, political, civil and religious, of the county, very briefly. 2d, The *geography*, as the mountains, plains and valleys, with the rivers, canals and water-powers. 3d, The nature and resources of the *forests*, the value of the several kinds of timber and for what uses. 4th, The *climate*. The mean and extremes of heat and cold, at different periods, and at the same periods in different years—the days when the injurious frosts came latest in spring and earliest in autumn, with a view to ascertaining the best times of planting and sowing, and of gathering the harvest. 5th, The *geology* of the county; in general its rock formation, and in particular the value and uses of its rocks for building and other purposes,—its mineral resources of all kinds, and especially its deposits of mineral and vegetable manures, as lime, marl, peat, swamp mud and the like.

6. *Statistics of agriculture*, as the average product per acre of each crop of corn, wheat, rye, oats, hay, potatoes and roots,—the average cost per bushel or ton of producing them, in the various localities, under common, and under the *best* cultivation,—a census of the population and how employed,—the number of all the cattle, horses, sheep and other live stock, in the county,—their value, and the cost and profit or loss of raising and keeping them, —the number of *farms*, with their extent in acres, how much is arable, pasture and wood; how much good pasturing will suffice for each animal, and on *how much worn-out pasture an animal may starve;* the various *breeds* of stock, and their points of difference and value; the amount of flour, corn, and the like brought into, and sold *from*, each town, with a thousand other interesting statistical facts.

7. The *botany* of the county, with a list of all its valuable trees, shrubs and plants; a list of all the noxious weeds, as the white-weed, thistle, witch grass, and the best mode of exterminating them.

8. *Entomology.*—Under this head all the noxious insects should be particularly described, such as the wheat fly, locusts, canker worm, curculio, and the means of preventing their ravages. Dr. Harris's valuable treatise nearly exhausts the first branch of this topic.

9. The *natural history of animals*, especially of those injurious to the farmer's interests, with a *discriminating tariff* of protection in favor of useful birds.

10. The commissioner or secretary would systematically, by means of carefully prepared circulars, filled with interrogatories, and through the best journals, and transactions of societies and by personal enquiry and observation, collect and arrange all the facts, theories and suggestions deemed useful to the cause, and prepare them in the form of an annual report to the board for publication, and distribution.

Here you have, hastily sketched, some idea of my views of the labor to be performed under the direction of a Board of Agriculture.

If our friends will continue the subject, and send you their suggestions of such additional matters as seem to them to require attention, I doubt not the Board of Agriculture, whenever established, will treat them with due consideration.

Your friend, H. F. FRENCH.

POWER OF THE SOIL TO RETAIN MANURES.

BY PROF. J. J. MAPES, NEWARK, N. J.

We propose in our present number to show the power of the soil to retain manures, and the means of improving this property when required.

For a long time it was supposed that all materials soluble in water would pass downward in solution, and thus be lost to plants—those who worked clayey soils claimed that, because water could not readily percolate their soils, that hence, they were not *leachy*, and therefore retained manures—while other operators with sandy soils argued that manures passed downward and were soon lost to the surface soil.

All these positions are false. It is true, that a fair proportion of alumina is valuable to soils and in the absence of carbonaceous matter is absolutely necessary for the retention of manures, but it is not true that the tenacious property of clay need exist to such an extent as to prevent the free filtration of pure water before the manures will be retained—for many soils which will pass pure water readily, will still retain, from impure water, all its impurities, permitting only the pure water to descend. Indeed this is true of all arable soils, and if it were not so, the water in all our wells would be unfit to drink from being surcharged with soluble organic matter.

Even the brown fluids of a barn-yard will not leach downward in the soil, without leaving all the fœtid matter in the surface. Dig in an old barn-yard, but a few inches below where the soil has been before disturbed, and it will be found not to have become dark-colored, and not to contain any undue proportion of the soluble matters resident at the surface, but to be like the subsoil of adjoining fields.

Alumina (clay) has the curious property of receiving and retaining all animal and vegetable substances, and their gaseous products, until abstracted again by growing plants, and for this reason a free clayey loam will purify water during its passage through the surface soil, retaining all the fertilizing substances originally held in the solution, and permitting the pure water to pass downward. Nor does this retaining power cease with organic substances alone, for many of the alkalies are also retained, and all of them to a certain extent. Excess of lime, potash or magnesia will pass down and therefore the chemist finds variable proportions of these alkalies in our well water.

This peculiar property of clay was noted by Mr. Teschmaker of Boston, in his public addresses many years since, and in our published addresses before the American Institute, as far back as 1840, the same truths are set forth. Within the last two years, Professor Way and other English chemists are claiming this as a new discovery.

Alumina is not the only substance in soils which has this retaining power, for carbon in every form has similar properties, and it is not important whether charcoal dust be artificially added, or exist in the soil by the decay of former vegetation or of manures; for in either case carbon is the result, and as such, has similar retaining powers to those of clay. Thus charcoal dust placed for a time near a fermenting dung heap, will receive and retain the gases arising from decomposition, and if placed in the soil will give out these gases again to the roots of growing plants. Privies, stables, &c., are rendered inodorous by the use of charcoal dust. Decomposed peat, turf, swamp muck, &c., are but varied forms of carbon, with some more partially decomposed vegetable matter. The dark color of soils is due to the presence of carbon; humus, vegetable mould, &c., are but modifications of carbon.

All know that an old and black garden soil will retain manure longer than field soils, and that a less quantity of manure will act in them, for the simple reason, that the carbon (charcoal,) contained in them, and arising from previous decay, retains the resultant gases from the decomposition of the manure until used up by plants.

Let any farmer try the following experiment and he will be satisfied of the truth of our statement.

Prepare four barrels by taking out the upper heads and boring small holes in the lower heads, stand the barrels on end and fill them with the following substances.

No. 1. Barren sand with one-tenth the bulk of clay intimately mixed throughout the mass.

No. 2. Barren sand with one-tenth of finely ground charcoal dust.

No. 3. A dark colored loam or garden soil.

No. 4. Barren sand alone.

Pour on all four barrels the brown solution from the barn-yard, and it will be found, that the water running out of the bottoms of Nos. 1, 2, and 3, will be colorless and without smell; while that from No. 4 will be unaltered and as offensive as when placed on the top.

The question may now be asked, "if the soluble results of vegetable decay do not filter downward, what becomes of them?" We answer, that resident in the earth's surface, from the combined influences of sun and air, they decay, and take the gaseous form; if the soil contains either clay or carbon, these gases are absorbed by them, until abstracted by growing plants. But if these substances are not resident in the soil, then the gases rise into the atmosphere, and are absorbed by bot-

ter prepared soils elsewhere, or are carried to the ocean and are thus lost for a time from the land.

Let our readers reflect that both the vegetable and animal productions of the earth's surface are continually decaying, and that nothing but the facts we have stated can account for continued fertility. For if the results of decay could filter downward in solution with water, long before this time, the whole amount of organic constituents would have passed below the fertile surface, all our wells would be filled with masses of filth, and both animal and vegetable life would have ceased. The simple facts are, that all organic manures do decay in the earth's surface, and are only lost by rising in the gaseous form, and not by sinking below the roots of plants, and therefore they should be plowed under to such a depth that their resultant gases when rising shall meet with a sufficient quantity of alumina or carbon to arrest them.—*Journal of Agriculture.*

For the New England Farmer.

FARMS—BUTTER.

Friend Brown:—I have been for three weeks past viewing the *Farms* amidst the hills and vales "of the old *Granite State.*" It is rather unfavorable at this time of the year, to decide on the fertility of the soils; yet, there are some indications left, to tell something of the land in this vicinity. There are many good *farms* in Hillsboro' country; having large dairies, the land being adapted for grazing, and a large number of cows are kept by many *farmers*, sometimes fifty. There is a great inquiry *up here* about the best *mode* of churning, and what churn is best adapted for use where large quantities of cream are to be churned. Please answer these inquiries, and oblige a large number of your readers. Yesterday while passing from Mason village to this place, I was deeply interested in the scenery through which I passed. Standing on an eminence, at the east of this village, the scenery around me was beautiful and grand. Below me a river, winding along in its serpentine course,

> Leaping, and foaming in sportive glee,
> To find its level
> In the deep blue sea.

At the east, the Peterboro' Mountain lay along, filling up the back ground with its walls of *Granite* and *Mica* slate. And at the west, the *Monadnoc* Mountain reared its massive top amidst the clouds of heaven. How the soul seems to rise, (at such times,) in adoration and praise, to the author of Heaven and earth, that he has given us power to admire his works. But we shall never be fully satisfied until we stand on Mount Zion above, and drink in those pure and unalloyed delights.

> "Where joys like morning dew distils,
> And all the air is love"

Peterboro', Dec. 11, 1852. J. R.

Remarks.—The common thermometer churn is the best we have ever used where not more than 30 or 40 pounds of butter a week was made. The common dash churn is used in Western New York in some of the large dairies, moved by dog or sheep power, and is preferred to any other. The barrel and rocking churn are also used. Some like one and some another kind, best.

ALKALINE WASHES FOR THE SURFACE OF TREES.

Almost all the alkalies have in turn been used for this purpose. The trunks of trees have been white-washed with lime, and perhaps this is the worst practice which has been resorted to for the destruction of fungi and insects, and although at the time of its application, the lime is caustic and will decompose parasitical plants, this action lasts but for a very short time. The lime becomes converted into carbonate of lime, fills the ultimate surfaces of the bark, and prevents the healthy respiration of the tree; therefore, trees which have been treated with white-wash, while they present an apparently clean surface, are not in an entirely healthy state.

Solutions of potash when saturated, were found occasionally to destroy the tree, and this gave rise to its use in the form of soap, which will adhere for a greater length of time, and was found to be less deleterious.

One alkali, (soda) however, may be used with impunity, without the fear of injuring the bark of any tree; for, while it causes the rapid decay of the dead portions of the bark, it has no effect upon the living parts. If the body and branches of a tree be wetted with a saturated solution of a good quantity of sal soda. such as we have often described as Bleacher's No. 1 Soda, it will invariably improve the health of the tree—the inert portions of the bark will be softened, and mosses, and other fungi, will be decomposed—the cocoons and ova of insects will be destroyed. During the aftergrowth of the tree, the decomposed portions of the bark will be thrown off, leaving a clean and healthy surface. No tree can be fruitful, and improve in size and figure, unless its bark be perfectly clean.

The application of soda, made by dissolving one pound in a gallon of water, and applied in spring and late summer, will ensure vigor not attainable without such means, and will do away with the necessity of scraping or slitting trees to prevent their becoming hide-bound. Such trees as have smooth barks, may be rubbed with a woolen cloth one week after the application of the soda, and a shiny smooth surface will be produced.

We have a few trees in which the soda has been applied for three years in succession to the point where the branches commence, and it is now evident that the portion of the tree thus treated is larger and in finer health than the part immediately above it. We first saw this treatment at the seat of Robert Rennie, Esq., Lodi, New Jersey.—*Working Farmer.*

For the New England Farmer.

A CRACK FROM THE NORTH.

There is a profit in pork as well as poultry. The undersigned has recently butchered a swine which had brought a litter of pigs this season worth $30. She was, when butchered, six feet in length, six feet two inches in girth, and weighed with the rough fat, six hundred and thirty pounds, at eighteen months old.

If any of my brother farmers in Massachusetts have, or can, beat this, this season, I will try again next. Richard Whittier.

Grafton, N. H.

OXEN AGAINST HORSES FOR FARM WORK.

EXPERIENCE OF MR. GEO. DEWEY, OF HANOVER, N. H.

Horse teams upon the farm with good rigging make such a fine appearance that many take a great fancy to them. And such persons generally manage in some way or other to persuade themselves that they are much more serviceable and more profitable than oxen. On this subject the experience of our friend Mr. Dewey is well worth considering.

First Cost.—In the first place, the cost of a good span of working horses, says Mr. D., is at least twice the cost of a good yoke of oxen. And the wagons, harnesses, and other rigging necessary, will cost more than twice as much as for oxen; $326 will not be more than enough to purchase two young and good working horses, with a wagon, and cart, and rack, and other suitable equipments, while the sum of $160 will provide a choice yoke of oxen, and a cart and wheels, and rack, and all else necessary for them in ordinary farm work.

Cost of Keeping.—Then the cost of keeping horses is well known to be considerably more than the cost of keeping oxen, even if the latter are ever so well taken care of. The blacksmith's bill is sure to be twice as much upon the horses, and then the wear and tear, and breaking of tools will go higher still. Horses are liable to numerous casualties. They get chafed, lame, sick, or something else, ten times where a yoke of oxen is troubled once. If the horses are at all active and spirited as they should be, they cannot well be trusted to any but a choice, careful teamster. Besides, hired hands are very apt to make them go sometimes with much more than useful speed. Now and then a horse is unharnessed from the plow where he has been hard at work in the field, and put upon the very top of his speed to the store, a mile or two off, to get a pipe or plug of tobacco, or some such indispensable article.

Service Done.—Oxen will do all kinds of farm work well, and many things altogether better than horses. For instance, starting out manure, hauling rocks, getting out wood, Mr. D. says that a strong yoke of oxen will do as much as a span of horses, if well kept, and oxen must be well kept to be profitable. Give the oxen the same keeping as the horses and they will follow them in plowing any length of time, provided the furrows be of equal depth, and they will do this through any weather, except the very warmest. The great fault of those who complain of the slowness of oxen, and their want of strength and endurance, is that they do not keep their oxen well. And another point of great consequence is, that the oxen are put to work at a very early age, and before they have had time to gain their proper size and strength. Horses do not so often have their early growth checked in this way. Besides, calves are often so meanly fed that they are greatly stinted by that also.

Keeping.—They should be kept so as to be always fit for the butcher. Mr. D. has a farm of 150 acres, 40 of which is in tillage. He uses no other cattle for labor except one yoke of large oxen. They are so kept and used that they are fit for the butcher through the hardest of the work. During the first part of the winter, till March, they get hay in the morning, oat straw at noon, and corn fodder at night. Later in the season they are fed with a peck of meal per day, with chaff or chopped hay, sometimes moist, in addition, and a bushel of turnips twice a week. The meal is made from corn and cobs—two bushels of cobs and one bushel of corn on the cobs, and perhaps a bushel in ten or twelve, of oats, are mixed ground together. Cattle do not feed so well on hay or on grain alone, as on a mixture. Vegetables are of great service to make them healthy. When Mr. D. fats cattle he gives them daily a bundle of green corn fodder in the summer and fall till the frost comes, and then green turnips and beets thinned out of the field, and afterwards a bushel of turnips and a peck of meal, like that above mentioned, till sold.

The Profit.—Allowing well fed oxen to be just about as serviceable as horses, besides the extra cost in the beginning, the repair of tools, the extra expense of shoeing, risk of lameness and disease, and the great care needful in managing, there are other things that increase the profit of oxen. The manure they make is more valuable. The best kept horses will decrease in value $10 annually, take one year with another, while oxen will increase in value. Mr. D. never buys a yoke of oxen till about six years old. If they do not prove just the team desired, he sells them in a year and gets another pair. They will do well till 12 years old. His experience for the last 20 years is as follows: where is presented the first cost of the oxen, the number of years kept on the farm, and the price sold at. And during that time the oxen have been the only team for farm work, and have not in all been turned out from labor for the purpose of fattening, three weeks during the 20 years.

Cost.	*Time kept.*	*Sold at.*
$ 72	About 6 years	$115
70	" 1 "	95
105	" 5 "	96
70	" 1 "	98
85	" 3 "	112
80	" 3 "	110
50	" 1 "	105
$573		$731
	Cost	573
	Profit	$158

Granite Farmer.

DON'T TAKE THE PAPERS!

In making an excursion, the other day, a little out of the State, we indulged ourselves as usual, in taking a hasty survey of the farms, buildings, orchards, &c., as we passed along. The glance that may be obtained, as rapidly as one rushes along in a car, is oftentimes a pretty good index to the whole establishment. And we have sometimes thought we could write a tolerably correct description of the habits of the inmates of an establishment by merely passing the premises.

One homestead we saw, worthy the age when cast-off hats and pantaloons ornamented the windows. The house had been erected with fair proportions and painted white; the elements had wasted the paint, leaving only patches here and there to indicate its original color, while the fences were scattered in every direction, like a platoon of routed troopers. The barn stood awry, rickety,

and uninviting, with all the avenues from the barn-yard prostrate. Nothing loth, the cattle had forsaken its gloomy precinct, and were basking in the sunshine on the south side of the dwelling-house—one cow quietly chewing her cud with her nose over the threshold of the front door! All other things about the premises were in excellent keeping with this one point. While we wish the occupants much joy in their primitive possessions, we cannot help believing that they *do not take the papers*—or, at any rate, that they do not take the New England Farmer!

For the New England Farmer.

FARMER'S FIRESIDE TALK—TOPPING CORN.

Well, as I was telling you, the other evening, the man I spoke of had something to say about topping corn, as well as hilling up. I do pretty much as the way is here,—a few days before the corn is ripe, I cut off the tops of the stalks, and take them in for fodder; then, in say a fortnight or so, I gather the corn. After that, I cut the bottom stalks for fodder. That is generally the way about in this neighborhood. Some though don't cut the bottom stalks but let them stand, and in the spring cut them down with a plow, splitting the hills, as they call it, and then rake and gather the stalks into the stable yard.

He says he has great doubts of the advantage of this plan: and whether there is not more lost to the grain than is gained in fodder. His idea about that is something in this sort, if I can tell it right. "In the first part of the season, in spring and till about midsummer, the sap goes up or ascends, being drawn up by the roots, and it goes up to all parts of the plant. In the latter part of summer the sap goes down. The upward sap, he thinks, forms the stem and leaves of the plant. This it is which gives it growth and expansion. When the sap ceases to go up, it must be because the roots cease to take it up from the earth. The function performed by the roots in the early part of the season is changed. They no longer take up and convey sap to the stem and branches. The descending sap now begins to pass down. The leaves are now formed. The scientific writers upon the vegetable structure and economy tell us that the sap that is taken up by the roots passes into all parts of the plant, and lastly into the leaves;—and that in its passage through the leaves, it becomes changed, and passes again through the plant, a different fluid from that which passed up. The change which is made in the leaf is likened to the change which the blood of man undergoes in passing through the lungs. The difference, in fact, between the ascending and descending sap is so great, that there are plants whose sap in the spring when ascending is agreeable and nutritious, and is drank by the people of the country, but after midsummer, when descending, it is acrid, and even deadly poisonous. The inhabitants of the Canary islands draw off and drink the ascending sap of a species of Euphorbia, a native plant, which is very pleasant while the descending sap is very acrid, and much like the juice of common spurge. Now it is this descending sap that gives whatever is *peculiar* to any plant. It gives the individuality, or particular property. If a tree has a coloring matter, gum, starch, oil, tannin, or any other peculiar product or property, it is communicated by the *descending* sap. This forms the fruit. It is the sap descending, passed *down* in the latter part of the season, from the leaves, that forms the corn, and gives to it its nourishing property. My idea of the origin and formation of this new sap is a little different from that of the writers; or, rather, I should state it differently. The leaves of plants evaporate very rapidly. Some plants evaporate their whole weight, and even more, in twenty-four hours. And as the upward sap and downward sap flow at different seasons, I am inclined to think that the last is rather to be considered a new matter, not merely resulting from a change in the upward sap, by the function of the leaf, but that the upward sap is wholly passed off by evaporation, and that then the action of the root ceasing, that of the leaf begins,—and taking in oxygen and other constituents of the air, the downward sap is rather made anew in the leaf, from these new materials, and then passed over the plant. But I need not say anything about this, because whichever it may be, the effect on the plant is the same. It is the downward sap that makes the corn,—and this downward sap is made or qualified in the leaf, and cannot be in any other part, or by any other process. Now, therefore, if you cut off the top with the leaves above the ear, before the ear is ripe, you stop the growth of the ear, at that point to which it has attained. It grows no more. It had before ceased to draw any thing from the ground. And if left to stand on the stalk a fortnight, it will gain nothing, either in weight or nourishment, but will be exactly the same as if gathered on the day it was topped.—It may sweat or dry on the stalk, as it would in the crib, or perhaps better; but it *gains* nothing. This has been proved by weighing. Mr. Testall, my neighbor, weighed some of his corn that had been thus topped, and the same quantity on the same field that had not been topped, and found the grain of the topped stalks to be three bushels less in measure to the acre, than that which had not been topped, and the bushel four pounds less in weight, making over another three bushels to the acre. If this is correct, the gain in estovers is just balanced by the loss in the grain—and, of course, whatever the stalk is worth as a restorer of the soil, is the true loss by topping.

By thus weighing the topped and the untopped corn, an estimate by approximation may be made of the advantage or loss by the process of topping. And this is the question.

Mr. Brooks, of Princeton, Worcester county, in a statement made in the *New England Farmer*, Dec., 1851, apparently made with knowledge and care, puts the average for a crop of corn in this State at 40 bushels, the value 80 cents, worth of estovers seven dollars the acre. One, at least, or perhaps two dollars additional cost is incurred in cutting the stalk or topping and binding, per acre. This would make the value of the tops five or at most six dollars to the acre for fodder. Six bushels of corn more to the acre, at 80 cents, would be $5.00 less 20 cents. If, by leaving the corn untopped, you gain so much corn, then there will be no advantage in topping. But if the increase of the corn is only a small part of this ratio, or suppose, even, it is nothing, is there not as much

gain by restoring the stalk to the exhausted soil, as by feeding it?

At any farm in this State, a cord of stable manure costs five or six dollars. Now by restoring the estovers of an acre, I believe you enrich the acre more than by a cord of manure. You restore nearly all that has been drawn from the soil by the growing crop. The ear, as I said, is drawn from the air, not the earth, and the evaporations of the plant are nearly pure water. If, therefore, the stalk is returned, and plowed in in the fall or spring, the ground receives back nearly the value it has given out. It receives the same *kind* that it gave, and I think more in amount of fertilizing matter than from a cord of stable matter. Of course, if this is so, there is a loss by topping, even without counting the loss of grain."

This is about what he said on topping, as near as I can tell it. It is curious to me. Now, whether the man is critically exact in considering the stalks to be of more value for manure than for fodder, is what I can't tell, though I suppose every one must work that out by his own experience and calculation. But it was the *way* of coming to it, that took me. In fact, I shall be obliged to think there is something in science, after all. For it was his knowledge of the science of the vegetable growth that led him along to reason as he did, and brought him right down to the point. There must be some benefit to a farmer, to have that sort of knowledge, that is certain. Don't you think so, neighbor Brown. W. J. A. B.

Essex, Nov. 30, 1852.

REMARKS.—Certainly, certainly, friend B.; there is no more doubt on our mind on that point, than there is that tapping the stalk decreases the amount of grain. We have tried both ways, but continue to cut the stalks for two reasons. 1st, Because we get on the top stalk a large amount of the best fodder we cut on the farm. 2d, Because it is so much more convenient harvesting the corn.

OFFICERS OF BARNSTABLE COUNTY SOCIETY.—We are indebted to CHARLES H. BURSLEY, Esq., for the following list of the officers of the Barnstable Co. Agricultural Society, elected on the thirteenth of October last.

For President—CHARLES MARSTON, of Barnstable.
Vice Presidents—Enoch Pratt, of Brewster; Walter Crocker, of Barnstable.
Recording Secretary—Charles H. Bursley, of Barnstable.
Corresponding Secretary—F. W. Crocker, of Barnstable.
Treasurer—Frederick Scudder, of Barnstable.
Executive Committee—Matthias Hinckley, George Marston, Nathan Jenkins, Nathan Crocker, Frederick Parker, of Barnstable; Thomas L. Swift, Falmouth; C. B. H. Fessenden, Sandwich; J. G. Hallet, Yarmouth; William Howes, Dennis; George Copeland, Brewster; Obed Brooks, Jr., Harwich; David Howes, Chatham; John Kenrick, Orleans; Jas. H. Knowles, Eastham; P. G. Atwood, Wellfleet; Solomon Davis, Truro; Thomas Lothrop, Provincetown.

OLD APPLE TREES.—There is a bearing apple tree in Connecticut, alive and flourishing, at the advanced age of two hundred and fourteen years. It is of the English Pearmain variety, and was imported in 1638, by Gov. George Wyileys, and bore good fruit this season, on the "Charter Oak Place," now owned by Hon. T. W. Stuart, Hartford. Some of the fruit of this venerable tree was presented to the Connecticut Horticultural Society in October last. For more than two centuries have the people been blessed with the fruit of Gov. Wylleys's regard for the welfare of men who should "come after him." Every man should set out fruit and shade trees, so long as he has the physical power to do so, that "future generations may rise up and call him blessed."—*Vermont State Journal.*

PAPERS FROM AFRICA.

Through the politeness of Mr. C. F. DENNETT, we have received the *Cape Monitor*, of the 15th September, and *The South African Commercial Advertiser*, of Oct. 2, both published at Cape Town, Cape of Good Hope. The *Advertiser* contains a report of a public sale of Merino and Thibet Rams, the Merinos averaging $180 each, and the Thibets $155 each. The *Monitor* contains a report of an agricultural Show and Fair at the Cape on the 14th Sept., at which matters seem to have been managed much as they are with us. The premiums on the horned cattle we notice were $25 each.

The *Advertiser* contains an interesting letter, a few extracts from which we give below, which shows what is going on in a portion of the interior of Africa.

The Orange River Sovereignty, as you are aware, is situated between the Great Orange and Vaal Rivers. Sixteen years ago, before the "great trek" of the Emigrant Boers, it was a "trackless desert," a "howling wilderness"—"a land in which, although thinly populated by skulking broods of Bushmen, and by the starving remnants of nomadic pastoral tribes, which have been broken up by war and violence, no man permanently dwelt, neither was the soil any man's property;"—a land in which, for hundreds of miles, the eye was not greeted by the smallest trace of human industry, or by any vestige of human habitation—the wild and interminable expanse ever presenting the same appearance—*that of one vast uninhabited solitude.*

Such was the picture drawn by the well-known traveller, Capt. W. C. Harris, in 1836—7, of the country between the Vaal and Orange Rivers.

This vast country is divided off into farms—I forget the precise number, but I think somewhere about 1,500, the greater proportions of which are occupied and stocked.

The most striking feature in the country is the enormous extent of its flats, covered, after passing Smithfield, with thousands of head of game, comprising the springbuck, blesbok, hartebeest, quagga, and wildebeest—and last, though not least, the "King of Beasts," that noble animal "which sweeps the desert with his rolling eye!" The pasturage of these plains, with the exception of what the Dutch term the "hooge veld," or "wildebeeste flats," which are covered with a sour wiry grass, is principally what is termed in the colony "gebroken veld," or a mixture of sour and sweet grass.

But what must before the lapse of many years raise this country to a very important position, is the fact that it is well adapted for woolled sheep.

The elevation of the country being very great, the winters are cold—the ground being generally covered with frost, snows frequent, and the waters—excepting the large running stream—frozen.

I have seen ice, half an inch thick, at two o'clock in the afternoon. This keeps the sheep in rather low condition in winter, but the length of staple of the wool is considerably increased thereby. As to the *quality* of the wool, the best proof is that "Sovereignty" wools have realized as much as 1s. 3 1-2d. in the London market. Upwards of *fifteen hundred* bales have been exported from the last clip, and taking each bale to be worth only £10, this will give a total of £15,000. No better proof can be required of the suitability of the country for sheep-farming.

SUPER-PHOSPHATE OF LIME.

Our space, this month, is not sufficient to admit of publising the numerous letters we have received from those who have used the Improved Super-phosphate of Lime. In all cases where it was used preceding the spring rains, its results have been truly wonderful. On later crops since the rains of July, its effects are equally great. We have applied it to one field, on which are planted 60,000 cabbages, all of which are in a most flourishing condition, and fully equal those raised in the richest and oldest soil. This field was plowed in June, being the first time for many years. It was an old pasture, over-run with weeds and foul grasses and entirely out of heart. We applied 250 lbs. broadcast per acre of the Improved Super-phosphate of Lime, and after putting out the plants at the first hoeing gave 250 lbs. more, making in all 500 lbs., at a cost of $12,50 per acre, and we state confidently that this will give twelve thousand merchantable cabbages per acre.

Those who have used the new manure on grass, wheat, corn, &c., are more than delighted with its effects, while for turnips the results are still more wonderful. It hurries their growth so rapidly, as to force them beyond the fly and ensure their perfection at an early date.—*Working Farmer.*

New Haven, August 24th, 1852.

PROF. J. J. MAPES:—Dear Sir—Allow me here to add one tribute of notice to the many you are doubtless receiving in behalf of that valuable manufacture with which you have to do, and which cannot fail to prove a valuable acquisition to the agricultural interests of our country.

As you well know, I desired you to send me one half ton of the *Improved Super-phosphate of Lime*, which was duly received, and applied to the various crops connected with horticultural operations. Having had an analysis of the soil, I was well aware of the results that would probably follow its application, nor have I been disappointed in my expectations; all that I could have expected or hoped for has been fully realized. While the applications which I have made were for improvement, yet to mark the result, I have not forgotten the value of experiment in leaving some portions of the crops without the benefit of the application, that I might more fully realize and exhibit its real value. I have applied it to corn, potatoes, beets, onions, carrots, beans, squashes, tomatoes, cucumbers, melons, cabbages, turnips, &c., &c., &c., including most other vegetables raised for the market, and in all cases I have been obliged to credit it with marked effects; and notwithstanding the drought, which has hitherto prevailed yet the *Improved Super-phosphate of Lime* has not failed to show its influence, thereby proving what most desire to know, that it is readily soluble and suitable for the wants of plants. While I am unable to give you precise results, as the crops mostly remain unperfected in growth, yet it requires no long mathematical demonstrations to show where the liberal hand of its application was given.

But I need not enlarge upon its virtues; all who have used it, are doubtless aware of its influence, and those who have not, only need try it and be convinced.

Amid the improvements which are now gathering in behalf of agricultural interests, may the recent manufacture of Improved Super-phosphate of Lime take no unworthy place, and find no light esteem in the minds of all who greet agricultural interests with a cheerful hand; and while I bespeak for it a general reception in our agricultural communities, I feel I am doing nothing more than its merits will warrant, and successful cultivation demand. And may we hail with pleasure the dawn of that delightful day, when agriculture shall take science as her guide in the fields of labor, and make it the "Day Spring" of her energies, improving and enriching as effectually the mind as the soil. When this shall come, we shall no longer see hesitation in the use of *needful* fertilizers, but will behold each improvement as a new beam in the radiant light of a glorious morn.

Respectfully yours,

SOLOMON MEAD.

FARMERS' CLUBS.

We cannot urge upon our readers with too much earnestness the importance of forming clubs for the discussion of all matters relating to the farm

Now is the appropriate time—suffer it not to pass unimproved. You will find amusement, improvement, and *capital*, in its deliberations, which you cannot now appreciate. Form the club, and be determined to take an active part in it, and you will find your thoughts ranging in new and delightful fields through another year. Meet at your own dwellings, and thus while you are interchanging civilities with each other, you will save all expense of hall hire, fuel and lights.

The following is a suitable form of a constitution:—

CONSTITUTION.

ART. 1.—This Association shall be styled *The ——— Farmer's Club.*

ART. 2.—Its officers shall be a President, Vice President, Secretary and Treasurer, who shall be chosen annually by ballot.

ART. 3.—The President shall preside in all meetings of the Club, with power to preserve order, appoint Committees, and assign topics for discussion.

ART. 4.—In the absence of the President, all his powers shall be exercised by the Vice President.

ART. 5.—The Secretary shall keep a record of the proceedings of each meeting, which shall be read by him at the next subsequent meeting. He shall preserve all reports of Committees, and conduct whatever correspondence shall be ordered by the Club.

ART. 6.—There shall be at each meeting a dis

cussion upon a topic previously announced, which shall be commenced by four members designated at the preceding meeting by the presiding officer; and such other exercises as the Club shall deem proper.

Art. 7.—There shall be in the Club twelve Standing Committees:—One on Manures; Hoed Crops; Root Crops; Grain Crops; Grass Crops; Live Stock; Farm Buildings and Farms; Farming Tools; Reclaiming Waste Lands; Garden Fruits; Ornamental Gardening; Fruit and Ornamental Trees.

Art. 8.—Select Committees may be appointed as the exigencies of the Club may require.

Art. 9.—Each Committee shall make report in writing, from time to time, as the Club may order, and the reports so made shall be at the disposal of the Club.

Art. 10.—Any person may become a member of this Club by paying one dollar to the Treasurer.

Art. 11.—The Annual Meeting of the Club shall be holden on the first Monday of November of each year, for the election of officers; and all officers to hold over until new officers are elected.

For the New England Farmer.

CORN-COBS—BEES.

I have been a reader of the *N. E. Farmer* for the past year, and I trust that it has not been without profit. I have tried some of its directions, and particularly those relating to the management of fowls, and have realized a larger amount of eggs this year than any year heretofore; this I must attribute to the reading of the *Farmer*.

Now I want to ask you a question or two. And first, in regard to *corn-cobs*. Much has been said in our section for and against their use. Some say that corn ground with the cob is worth as much as its bulk in oats, while others say that cobs are entirely worthless.

Now I want to know your opinion in regard to this matter; whether there is any nutriment in them or not; if there is, what is the best manner of feeding them to cattle or swine! The next question is in regard to E. Jordan's Honey Bee Feed, a notice of which I send you. Now I would like to know how many lbs. of feed will make a pound of honey? Do you believe that the one dollar invested in this business may, as he says, be made worth $50 twice told, or is it all a humbug!

A. D., 2d.

Dudley, Dec. 1852.

Remarks.—We have no analysis of the cob, and can, therefore, only speak of it in general terms. Without possessing nutrient properties it may be used to advantage on other accounts. For instance, if you find it necessary to feed store pigs on corn entirely, for want of less concentrated food, such as potatoes or pumpkins, we have no doubt it would be better to grind the cob with the corn for them. But for fattening swine, the pure meal would be far better. A certain amount of *bulk* is as necessary as nutriment itself, to the healthy growth of the animal in all its parts. For cattle, fed daily with hay, the cob would be of little or no service; but deprived of a considerable portion of the hay usually fed to them, the cob would be beneficial. There is considerable potash in the cob, and it may possibly answer some good purpose on that account. Fowls flourish finely, fed on cob-meal mixed with scalding water, as a change from dry food.

We know nothing of Mr. *Jordan's* mode of feeding bees, and of course cannot say whether it is a "humbug" or not. Persons do feed bees advantageously, with West India honey and the common molasses sugar, heated together and strained, at an expense of three or four cents a pound. Seven swarms of bees, to which we fed this composition, carried off *eighteen pounds* in two hours, but how much it added to our profits we had no means of ascertaining.

There is little doubt but that bees may be aided in their business when their pasturage is short, as is sometimes the case, by a mixture somewhat like the above. But probably not to any great extent, as all that they receive must pass through a thorough elaboration in their bodies, and cannot be greatly hastened, as one would a water wheel by raising the gate and letting on a stronger head of water.

FARMERS' WIVES.

We gladly give room to the following extract, and doubt not but that the sentiments therein expressed will agree with those of our readers generally:—

The farmers of this country occupy a position of honor and usefulness. They are the source of a nation's wealth and prosperity, and by their vote and influence can, at any moment, decide its destiny. Farmers' wives occupy a position of corresponding importance in our own country's history; they are and have been the mothers of the men whom our nation delights to honor, whose voice of wisdom and warning is heard in our nation's councils. Lebanon shorn of its stately cedars, would be her sad emblem, were our land bereaved of our patriotic and heroic men whose early youth was associated with rural scenes, with woods and streams, and the bird voices that fill the air with melody. But the sweet voice that stilled the cry of infancy, the kind hand that led them to the altar of prayer; the counsels that conducted them in the paths of wisdom, the influence that developed their moral nature—those were the pledges and presages of their future greatness. The wives of our farmers, whose thrift and industry have secured for their husbands a competency, whose intelligence is the light of the social circle, and whose piety is the guardian of domestic peace, are emphatically "the mothers of our men." A failure in the country—with all the opportunities of success, away from all the moral contaminations of a crowded city, amid the free refreshing winds, among all that is pure and poetic in nature, amid all that is suggestive of truth and beauty, and all that is bountiful and beautiful in agricultural pursuits and success—rightly to train up children, should awaken the voice of instructive warning. There may have been no failure in

accumulating wealth, none in making home beautiful and tasteful to the eye; but the failure has been where it is most fatal, in training the heart and directing the footsteps of childhood. There may have been lavish expenditure to gratify fashion and perverted taste, but little care to develope the intellect and train the heart. There may have been great expense to teach children to sing, to play and dance well, but none to make them useful, virtuous and happy. Hence the failure, and the need of warning. There is tendency in these days of wealth and luxury among our farmers, to imitate the ostentation of fashionable city life. We wage no war against refinement. We are not averse to the elegancies of life; but to train up our daughters only to shine in the parlor, to play the guitar and speak correctly the French accent, and our sons to despise the honest toil of the husbandman, to feel that they must aspire to a profession, if they would become men; this is a sin not to pass unrebuked. Our fathers, who laid the foundation of our nation's greatness, were the humble tillers of the soil; and many who have plowed the field and sowed the seed, have risen to guide the affairs of state, to hold converse with the muse, or to sweep with a Milton's hand the harp strings. Our mothers, whose names and heroic deeds are immortal, cultivated the domestic virtues, plied the loom and the needle, and made the garments of the men whose names are associated with the heroism of the past. We must look still to farmers' wives, who are blessed with children, for the men of strong frames, of iron nerves and heroic hearts, to accomplish our nation's destiny. Let them not be recreant to their high trust. If they fall, to whom shall we look for the men, and the women, that shall be worthy to steady the ark of God, and train the coming generation for usefulness in the blessedness in heaven.—*Anonymous.*

For the New England Farmer.

ON BARNS.

SIMON BROWN, ESQ.:—Dear Sir,—You will please apply one of the enclosed $2, to the payment of one copy of the *New England Farmer* for one year commencing January, 1853; and the remaining one to arrearages; and consider me a permanent subscriber while I live, &c.

And here let me ask another favor. Will you be kind enough to describe or refer me to the most approved barn for winter feeding 20 or 25 head of fat cattle or milch cows, as the case may be? Having in view a sufficient cellar room for storing roots enough for one feed per day for five months; cheapness and durability of construction, convenience and economy in storing and feeding; health and comfort of the animals, and last, the making and saving of manure. Location for the barn is level land on the west bank of the Ohio river. J. H. COLLINS.

Locust Lawn, New Albany, Indiana, Dec. 16, 1852.

REMARKS.—Our correspondent will find a plan of a barn on page 272 of the *Monthly Farmer* for 1852, which we consider as perfect in its arrangements as any we have ever seen. The description is full and easily understood, and combines about all the conveniences we can suggest. If your ground is level, make half the depth of your cellar below the surface, using what is thrown out towards wharfing up the drive ways and cellar wall. Have your cellar eight or nine feet deep, and arrange your leantos and horse stalls so as to gather all the droppings under one end of the barn, leaving the other end of the cellar for roots, implements, barrels, lumber, &c. This arrangement will leave the hay over the root cellar, and of course mostly away from the vapors of the manure. By an examination of the engraving, and a careful perusal of the remarks attached to it, you will readily study out the best mode of constructing a barn.

For the New England Farmer.

BIRDS OF NEW ENGLAND.

THEIR PAST AND PRESENT HISTORY....No. 1.

BY S. P. FOWLER.

There was but very little correct knowledge upon the subject of ornithology previous to the appearance of the great work of Alexander Wilson, which was first published in September, 1808. It is true that Catesby, Jefferson, William Bartram, and Dr. Barton in the southern portion of our union, had written upon ornithology, but some of these works were expensive, particularly that of Catesby, and were seldom seen; Jefferson, who copied from Catesby and Edwards, furnished us with nothing but a catalogue. Mr. Bartram, who was more complete in his history of our birds, described in his travels through North and South Carolina in 1791, two hundred and fifteen species, and Dr. Barton, in his fragmentary Natural History of Pennsylvania, has furnished us some information upon this subject. In New England, Dr. Belknap in his history of New Hampshire, and Dr. Williams in his history of Vermont, have each enumerated a few of our birds; the former being published in 1792, and the latter in 1794. But most of the knowledge of the natural history of our country previous to the nineteenth century, was to be found only in scattered portions, written chiefly by travellers, journalists and civil historians, who possessed very little taste for the study of the natural sciences. The descriptions of our animal and vegetable productions, by some of the early writers, are mere fables, and are laughable and ludicrous to us, in the extreme. One of the earliest works on the natural history of New England, was written by John Josselyn Gent, and published in London in 1672. It was a book not much larger than the New England primer, and furnished with plates, and entitled "New England Rarities." This compared with Audubon's splendid work on the "Birds of America," shews to the student in natural history, a greater contrast, than he had supposed this country, with all its march of improvement, could ever have furnished. We will now quote from the writings of several authors, who wrote upon the subject of our natural history in early times, and, who probably believed that what they had written was veritable truth, and not to be gainsayed. Our first quotation is from the New England Rarities, where the author is describing nothing more or less than our bull frog, and the reader cannot fail to notice, there is not one word of truth in his whole de-

scription. He says, "The Pond Frog, will chip in the Spring like Sparrows, and croke like Toads in autumn; Some of these, when they set upon their breech, are a *Foot high;* the Indians will tell you that, up in the Country, there are Pond Frogs *as big as a child of a year old.*" Our author describes a bird, which he calls the Troculus, and says "it is a small bird, black and white, no bigger than a swallow, the points of whose Feathers are sharp, which they stick into the sides of the Chimney, to rest themselves [their Legs being exceedingly short] where they breed in Nests, made like a swallows Nests, but of a glewey substance, and which is not fastened to the Chimney as a swallows Nest, but hangs down the Chimney by a *clew like string a yard long* and when they go away, they never fail to throw down one of their young Birds into the room *by way of Gratitude.*"

The above relation of the Troculus, is no doubt intended for our chimney swallow; and if we can credit any of Josselyn's description of it, we may notice that this bird, very early in the settlement of the country, forsook its natural abode in hollow trees, to seek the habitations of men, and the protection they afford. We are not one of those persons, who entertain the idea that this swallow hangs its nests in our chimneys by a string, as a sailor does his hammock, between decks, or that gratitude to the owner of the chimney in furnishing these birds with a breeding place, prompts them to leave behind them one of their own offspring. In point of fact, the chimney swallow constructs its nest of very small twigs glued together, and to the chimney by a gum, which the bird secretes from its mouth. This nest is small, and to the young birds crowded, and not being lined is hard and uncomfortable, thus inducing them to leave it, when only a few days old, and attach themselves by their sharp claws to the inside of the chimney. In this situation they frequently lose their hold, and fall down the flue, and perhaps flutter into the room. If we must be compelled to believe strange relations in regard to the habits of the swallow tribe, as related by the old writers on Ornithology, with our own observations to assist in guiding us, we should give a preference to those which relate to the torpidity of these birds in winter, at the bottom of our ponds immersed in mud and water.

There were a few birds, that early attracted the notice of the first settlers of our country. There were others, to which their attention had been called by the Indians, those close observers of nature. One of the birds mentioned by the old writers, was called by the aborigines the Wakon Bird, and is thus described. "The Wakon Bird, as it is termed by the Indians, appears to be of the same species as the birds of paradise. The name they have given it, is expressive of its superior excellence, and the veneration they have for it; the wakon bird, being in their language, the bird of the Great Spirit. It is nearly the size of a swallow, of a brown colour, shaded about the neck, with a bright green; its tale is composed of four or five feathers, which are three times as long as its body. It carries this fine length of plumage, in the same manner that a peacock does his. Capt. Jonathan Carver, the traveler through the interior parts of North America in 1766, says the Naudowessie Indians, caught several of them, when I was in their Country, and seemed to treat them as if they were of a superior rank, to any other of the feathered race. Mr. Loskiel, a missionary of the United Brethren among the Indians of North America, speaks of the bird of the Great Spirit—or the Wakon Bird, and describes it nearly in the same language as that used by Capt. Carver. It is difficult at this time, to ascertain what these birds were that were seen and described by our travelers, in the Indian Country. They were supposed to exist up to the time of Wilson." The description of our King-bird, as given by the old travellers, is as follows. "The King Bird is like a swallow, and seems to be of the same species as the black martin, or swift; it is called the King Bird, because it is able to master almost every bird that flies. I have often seen it bring down a hawk." It would seem that the Indians observed the courageous and tyrannical habits of this bird, before the arrival of our ancestors, and gave it the name of Sachem Bird. Roger Williams, in his key to the Indiaan tongue, says "the Sachem is a little Bird, about the bignesse of a swallow, or lesse, to whom the Indians give that name because of its Sachim or Princelike courage and Command our greater Birds, that a man shall often see this small Bird pursue and vanquish and put to flight the Crow and other Birds, farre bigger than itselfe." The generic description of the King bird, as given by our old writers, is inaccurate, the description of its habits is more correct. The Humming Bird was very generally known by our ancestors, and early attracted notice, and their descriptions of it, are generally correct, with the exception of its size. In Ogilby's America, published in 1671, the author says, "The Humbird is one of the wonders of the country, being no bigger than a *Hornet*, yet hath all the dimensions of a Bird, and wings with quills, spider-like legs, small claws: for color, she is as glorious as the rainbow; as she flies, she makes a little humming noise, like the Humble-bee, wherefore she is called the Humbird." The Wild Pigeon is mentioned by most of our old writers, and they were very abundant in New England in 1640; Josselyn says, "The Pidgeon, of which there are millions of millions, I have seen a flight of Pidgeons in the spring, and at Michælmas, when they return back to the Southward, for four or five miles, that to my thinking had neither beginning nor ending, length nor breadth, and so thick that I could see no sun, they joyn Nest to Nest, and Tree to Tree by their Nests, many miles together in Pine Trees. I have bought at Boston a dozen of Pidgeons ready pull'd and garbidged for three pence."

The Whip-poor-will was another bird which from its singular note, attracted the attention of our ancestors. It is well known, that it acquired its name Whip-poor-will, very early in the history of our country. The Indians called it muck-a-wiss, the note of the bird striking an Indian's ear and imagination, differently from what it did the English. There was a bird described by our old travellers in 1762, and said to be found in our woods, and called by them the Whetsaw Bird. Their description of it was as follows: "The Whetsaw is of the cuckoo kind, being like that, a solitary bird and scarcely ever seen. In the summer months, it is heard in the groves, where it makes a noise like the filing of a saw, from which it receives its name." This solitary bird of the cuckoo kind, above mentioned, was no doubt the little Acadian

Owl, and well known in Massachusetts. Audubon says it receives its name from the sound of its love notes, bearing a great resemblance to noise produced by filing the teeth of a large saw. These notes, when coming, as they frequently do, from the interior of a deep forest, produce a very peculiar effect on the traveller, who not being aware of their real nature, expects, as he advances on his route, to meet with shelter under a saw-mill at no great distance. In "Ogilby's America," published in 1671, we find our birds, called by him common, and peculiar, thus enumerated somewhat after the manner of Spencer in his Faery Queen.

'The Princely Eagle, and the soaring Hawk,
Whom in their unknown ways theres non can chalk—
The Humbird for some Queens rich cage more fit,—
Than in the vacant wilderness to sit.
The swift winged Swallow sweeping to and fro,
As swift as arrow from Tartarian bowe,
When as Aurora's infant day new springs,
When the morning mounting lark her sweet lays sings;
The harmonious Thrush, swift Pigeon Turtle dove,
Who to her mate doth ever constant prove,
Turkey, Pheasant, Heath cock Partridge rare,
The Carron tearing Crow, and hurtful stare,
The long-lived Raven, the ominous Screech Owl,
Who tells, as old Wives say, disasters foul.
The drowsie Madge, that leaves her day lov'd nest,
And loves to rove, when day birds be at rest,
The Eel murthering Heron and greedy Cormorant,
That near the Creeks, in moorish marshes haunt.
The bellowing Bittern, with the long leg'd Crane,
Presaging Winters hard and Death of Grain,
The silver Swan, that tunes her mournful breath,
To sing the Dirge of her approaching death,
The Tattering Oldwives and the cackling Geese,
The fearful Gull, that shuns the murthering Piece.
The strong winged Mallard, with the nimble Teal,
And ill shape't Loone with h a harsh notes doth squeal,
There Widgins, Sheldrakes, and Humilities,
Snipes, Dippers, Sea Larks in whole millions flees."

The belief that swallows became torpid at the approach of winter, and buried themselves at the bottom of ponds, belongs to the past history of our birds, being very generally believed by ornithologists previous to the nineteenth century. In our next communication we shall speak of the brumal or winter retreat of the swallow.

Danversport, Jan. 1, 1853. S. P. F.

For the New England Farmer.

WARTS ON PLUM TREES.

Frequent complaints continue to be made by correspondents of agricultural papers, and others, of the black bunches on plum trees, and as many inquiries for a remedy. Cutting off the bunches and burning them in the fire is every where prescribed as that remedy, and more than thirty years of personal practice, and observation of the practice of others, enables me to say that remedy is effectual. It is easy and simple, though sometimes a little severe on the tree. It may be it is too simple, and that a compound drug of many foreign hard-named materials would be more attractive, the application of which would be ten times the labor that the ready use of the knife requires. If the depredation of the curculio could be as easily prevented as the black warts, plums would be vastly more abundant than they have been. The last season, however, my plums suffered but little, and my cherries much less than ever before from the bite of the curculio. I attributed this to the very frequent high winds that prevailed about the usual time that the plums and cherries get their wounds. High winds clear the atmosphere of musquitoes and may partially do the same of the insects or bugs and millers that sting fruit.

Peach and cherry trees suffered much the past season by the great flow of gum. On examination of the bark about where the gum oozed out it was found dead, and the wood dead or affected under it. Whether the flow of the gum is caused by a worm or not I cannot tell, though it appears to me that irritation from this source affects it. Upon that supposition I use the knife, gouge or chisel to remove the dead bark with the gum, and leave the wood naked to the sound line of bark and wood; and if done thoroughly the gum ceases to flow—the wound becomes dry and is soon covered with the growing wood. I had a young, thrifty cherry, the Yellow Spanish, several years ago, badly affected and nearly girdled by dead bark, which I removed with the gum and to such extent that I expected to lose the tree. The gum ceased to flow and the tree soon healed over sound and has grown vigorous and large. No gum has till the past season made its appearance. On examination the same state of the bark and wood as formerly appeared—the same remedy applied, and thus far with the same good effect. Whether the cause be a worm, or a disease or cancer of the wood, so to speak, the free use of the knife appears to be the efficient remedy. On peach trees the effect of removing the dead bark and gum and leaving the naked wood to the air has had the same good effect, so far as my limited experience has gone.

RUFUS MCINTIRE.

Parsonsfield, Me.

For the New England Farmer.

NORTHERN SPY APPLE.

DEAR SIR:—In answer to your inquiries about the Northern Spy apple, I am not fully prepared to give all the information you desire; but as far as I have been able to test it, I am confident that it will do well with us in our northern climate.—The tree in the nursery is a very strong and handsome, upright grower, rather long jointed, but as it grows older the head thickens up, making it one of the handsomest trees grown. I have two hundred of them set out in my orchard now, five years from the bud. There can be no loss to any man setting an orchard of them, even if they should not meet his expectations in fruiting, as they are the handsomest growing apple tree I have ever seen, and the stocks would be worth more than any others, to work other kinds of fruit on, being so very thrifty. To have them fruit well, I think they want a very strong soil, with high cultivation. The specimens sent were grown upon scions set in young, thrifty Baldwin trees five years since, this being the second year they have fruited, bearing about one-half the quantity there would have been of Baldwins upon the same tree. The apple grown with us is much heavier and firmer and keeps better than it does grown in New York. I do not consider it in prime eating until May, and then I think it the best apple I have ever eaten. It will keep well until July. Yours truly,

Topsfield, Jan., 1853. W. G. LAKE.

OLD FARMER'S ALMANACK.—Number *sixty-one* of this old favorite is published for the year 1853. It is well printed and filled with useful and interesting matter, and interspersed with blank leaves, so that the farmer will find it exceedingly convenient. Published by Jenks, Hickling & Swan, Boston.

STEAMING APPARATUS

When hay is $20 per ton, and all grains proportionately high, it becomes the farmer to adopt every measure to economize. We have already, this winter, spoken of the importance of cutting hay, straw, corn stalks, &c., before feeding it out, and we have thought the subject of steaming of sufficient importance to justify the expense of an engraving to illustrate the manner of doing it. The description we find in that excellent work, the *American Agriculturist*, published by A. B. ALLEN, N. Y.

In some respects steaming is superior to boiling; it depends considerably upon the amount of food to be cooked.

In boiling, the blaze is outside of the kettle and the food inside; it is, therefore, in continual danger of being burned and much injured, unless some one stands by constantly stirring it. This is not only troublesome and inconvenient, but often adds more to the expenses of cooking, in the time of the person thus employed, than under ordinary circumstances can well be afforded. Nor do we see how this is to be avoided, unless the kettle be made with false sides and bottom, allowing several inches space between them and the true, which space must be kept constantly full of water. This would nearly double the expense of the apparatus, require its being closely watched during the boiling, in order to fill the space between with water as fast as it evaporated; the process of cooking would also be slower in this method, as it would require more heat around a double than a single kettle to bring the water within to a boiling point.

If food is to be cooked, on a small scale, boiling may be cheapest; if on a large scale, steaming is not only cheapest, but infinitely more compact; for the former would require a very large, or several furnaces for different sets of kettles, whereas, the latter may be done with one small furnace, steamer, and pipe, as shown in the cut, with any reasonable number of vats or tubs surrounding, in which to steam the food. In order to do this, the steam pipe must be made movable with a screw, flexible, or be composed of some material that when the food is cooked in one tub, the pipe can be turned and inserted into another. We have seen no less than five tubs holding 150 gallons each, surrounding a small steamer, all of which could be filled with food and cooked within twenty-four hours. Three tubs, however, are usually sufficient for a large stock, in which the food of the first may be cooking, that in the second cooling, while that in the third is being fed out. A single person may be able to oversee, and efficiently manage all these operations,

The furnace, steamer, and tub, are so plainly delineated in the above cut, that they need no explanation. In cooking potatoes and other roots, the tub should have a false bottom perforated with numerous small holes, and set resting on blocks from 3 to 4 inches above the true bottom. The steampipe should enter the tub nearest to the true bottom. The steam is thus introduced between the two bottoms, quickly rises upward, and is evenly diffused through the whole of the food. While the cooking process is going on, the top of the tub should be kept down as tight as possible, so as to prevent the escape of any steam. In cooking grain or meal, the false bottom must be taken out and the tub filled with water, as the steam heats the water and brings it to a boiling point as readily as a blaze or hot coals around a kettle.

Steaming is said to do its work more thoroughly than boiling, as it is so insinuating, it easily enters and bursts all the minute globules in the grain and vegetables. Be this as it may, certain it is, that either process renders the food more digestible, and easier assimilated by the absorbing vessels, and therefore more economical.

The following table in the *Edinburgh Journal of Agriculture*, shows very nearly the increase of bulk of different kinds of grain boiled to bursting.

4	measures of oats	increased to		7	measures.
4	"	barley	"	10	"
4	"	buckwheat or bran		14	"
4	"	maize	increased to	13	"
4	"	wheat	"	10	"
4	"	rye	"	15	"
4	"	beans	"	8½	"

Boiled food, especially in winter, is much more nutritious, if fed as nearly blood warm as possible. If quite cold, or, above all, if in the least degree frozen, we doubt whether it is so beneficial as if uncooked—grain and meal we are certain are not; for animals will eat the raw, cold, more greedily than they will the cooked. Stock fed upon cooked food will eat more of it than if uncooked, and lie down quicker to rest. Of course all this is better for them, as they will thrive faster, look finer, and do more work. It is particularly beneficial to give hard-working horses or oxen, just as much wholesome, cooked food as they can eat, soon after coming in at night. Toiling all day in the open air, man appreciates and knows well the benefit of a warm, hearty supper. Let him remember, then, that a warm mess and abundance of it, is equally beneficial to the animals which a kind Providence has given him as efficient aids in his arduous labor.

MILK CONVENTION.

The milk trade has now got to be an important branch of business; twenty to thirty thousand dollars worth being annually carried into Boston from a single town. Like all other business in the outset, this has been conducted somewhat loosely, and without those wholesome guards and regulations which every important business demands.

Milk is purchased and sold in very large quantities *by the can*, for a stipulated price, under the general supposition that the can contains *eight* quarts and no more. The can has, therefore, come to be a measure as much as the half bushel or peck. But upon an examination of these cans it is found that they vary considerably in their capacity, some containing a gill, and others a half pint, more than the quantity sold for eight quarts.

It is partly on this account, and partly on account of the low price at which milk is now sold, that those producing it have resolved to have a uniform standard of measure. In order to effect this desirable end they met in convention at Brighton, on Thursday, the 30th day of December, to take into consideration what ought to be done in the premises. A large number of highly respectable citizens assembled, and were called to order by WM. HOBBS, Esq., of Waltham, and the meeting was then organized by choosing MANSUR W. MARSH, Esq., of West Cambridge, Chairman, and BENJAMIN WELLINGTON, Esq., of Waltham, Secretary.

At this meeting a business committee reported resolutions which were discussed and a portion of them adopted; and after an animated discussion the convention adjourned to meet at the same place on Thursday, the 6th inst.

At the adjourned meeting on the 6th, there was a much more numerous gathering than at the first meeting; there being delegates from nearly every part of the commonwealth and from New Hampshire. All persons present interested in the subject were invited to take seats and a part in the proceedings. The whole subject matter was discussed, committees were appointed to prepare business for another meeting, to petition the Legislature, to attend to the procuring of a hall, to advertise, &c. Great harmony of action and unanimity of views prevailed throughout the deliberations, with an earnestness and determination of purpose not surpassed by any political convention in the heat of a campaign.

The following resolutions were passed with scarcely a dissenting voice.

Resolved, That wine measure, that being the only legal measure, be adopted as a standard and uniform measure in the purchase and sale of milk, on and after such time as this convention shall determine.

Resolved, That a petition be presented to the legislature now in session for the passage of an act requiring that *all milk cans shall be sealed*.

Resolved, That wine measure, as a measure for milk, be adopted on and after the first day of April next.

A committee was then appointed to arrange, if possible, with the directors of the various railroads to take passengers to and from this convention at half price.

The convention then adjourned to meet in Boston on Wednesday, the 19th inst., at such hour and place as will be designated in the notice of the committee appointed to attend to that duty.

CONSEQUENCES OF COLD FEET.

"Life is warm; Death is cold"

If there be one subject that beyond all others demands the earnest attention of the American mother, that subject is the protection of the feet of her daughter from the cold and dampness of the pavement. We give it more than usual prominence, because the evil is neither understood nor regarded in any other light than a remote contingency not worth a moment's thought, when compared to the gratification of making an impression on her admirers, by what she imagines a beautiful foot.

Physiologists have proved by actual experiment with the thermometer, that the central heat of the body, or that of the blood as it issues from its starting point, the left ventricle of the heart, is 101 degrees; and that at the sole of the foot it is not more than 90 degrees.

The great and unchangeable law of the Creator that developes life, is warmth. The egg of the fowl only possesses latent life, till the warmth of the mother expands the germ, and gives the heart its first contractile or active force; without warmth it would never assume its organized form nor continue its action; this gives conclusive evidence of the truthfulness of our motto.

Before we speak of the influence of cold on the nerves of the feet, and its still more rapid effect on the circulation of the blood, through the action of the heart, let us consider the value of the great facts we have presented to the reader, viz., the natural decrease of the warmth of the blood in the vessels of the feet, as a probable means of permitting the ill effect of cold on these great central organs of life, the lungs, if not prevented by art.

It is conceded by all intelligent observers, that a violent chill communicated to the body, is very soon and sensibly felt in the lungs, and that pleurisies and inflammations of the lungs themselves, are the frequent consequences of such exposure. Now, it is known that heat or caloric has a tendency to equalize itself in all the various bodies in the universe: ice itself, only melting, by the inevitable necessity of imbibing heat, when exposed to it, according to this unchangeable law, it can only exist as ice during the summer months, by interposing between the atmosphere and it, substances possessing a known power of repelling heat. Thus it is preserved in ice-houses. When the earth is colder than the body, this law instantly begins to operate upon the feet standiug upon it; and as the body is a producer of heat its safety is secured precisely in proportion to the vigor of health it possesses, or in other words, the rapidity with which its blood circulates through the lungs. It therefore follows that the feebler the circulation, the more unable the body is to part with its heat. If you clothe the body warmly, and thus prevent its warmth from transmission to the atmosphere, and interpose a cork sole between the sole of the foot and the earth, this transmission of heat is stopped, because cork, wool, silk and cotton are non-conductors of heat.

In a woman of ordinary size, there can be no reasonable doubt from the computation of physiologists, that half of her blood passes under the feet in two minutes at the least! so that it will be seen the conducting power of the damp earth must continually deprive the blood of its warmth. The effect of cold upon the nerves is yet more rapid than this. It is known to most persons, that instantaneous sneezing is often produced by standing on the cold hearth-stone or oil-cloth; and the speedy action of damp or cold feet on the bowels, is often painfully evident to many invalids. Assuming the body to be a producer of electricity (and it seems impossible to conclude otherwise,) that fluid is known to be subject to the same law as heat, i. e., to seek a constant equilibrium with surrounding objects. There can be no better conductor than the damp earth; all positively or negatively electrified bodies, not isolated or cut off by a non-conductor, seek an instant equilibrium.

This is well known to philosophers, and ought also to be equally so to every intelligent and rational being; therefore, it must be, that if heat and electricity be not the same thing, still the same danger must be incurred by too light clothing and shoes. Dr. James Murray has asserted, and he thinks proved, that cholera is rendered impossible, by isolating the feet by cork soles, and feeding and clothing the body, so as to keep up a high degree of electricity. All experience has proved that those persons most afflicted during both the epidemics which occurred in this city, were those who endured the greatest exposure to dampness, and ate the most watery and ill-cooked food; and what is more conclusive, that they were mostly attacked towards morning, when the atmospheric temperature was lowest.

Cork soles, of proper thickness, are an absolute non-conductor; and when the leather of the shoe is of good quality, they will prove sufficient for all the purposes of health till the month of December. By that time the pedestrian should accustom herself to a well-made boot with buckskin leggings, made in all respects like those worn by males. Without such protection, she is never safe from the vicissitudes of an American climate, nor from the liability to disease which will soon destroy her gracefulness and beauty.

For the New England Farmer.

SOWING GRASS SEED.

Friend Brown: — Last summer I inquired, through the *N. E. Farmer*, what should be done with land on which grass seed failed to come up in the spring. Immediately afterwards, I received a letter from Francis Brewer, of Springfield, Mass., kindly answering the question by giving the results of his own experience in the case.

And here I will acknowledge my obligation to him for his early reply, enabling me to try the experiment this year, so that I can now give the result for the consideration of others. But first I will transcribe a portion of his letter, believing it belongs to the public as well as myself, and therefore that he will excuse me for the liberty I take.

Says he, "The month of August is decidedly the most favorable time in the year for stocking land to grass seed,—first, you are more sure of a perfect catch of the seed, than when sown with spring grain, and your crop of grass will be free from the stubble which remains, and is unavoidably gathered in the first crop of hay succeeding the *first* process. It also furnishes an opportunity of applying those manures, or stimulants, for a succession of the hay crop, which it would be injudicious to apply to the grain crop; and again because you are secured against any loss of expenses by the crop of turnips, and these I consider important reasons; and I venture to recommend to you, that you plow your land as soon as practicable, have on your compost heap from 100 to 150 bushels of leached ashes, or 100 pounds sifted guano per acre, and have it spread evenly, and well harrowed in; mix 1 lb. of turnip seed with a sufficient portion of grass seed to go over the piece one way, sow the remainder of the grass seed in the opposite direction, then with a light roller or with a brush cover the seed, and I will warrant you success."

The above was received the 10th of 8th month (Aug.,) and pursuant to the recommendations contained therein, I had 1¼ acres plowed the 11th, on which we applied five and one-half cords of barnyard manure that had lain in a heap all summer, harrowed it in thoroughly, and the 13th, I sowed half a bushel of herdsgrass seed, half a bushel of redtop, 8 lbs. of clover, and 1¼ lbs. of turnip seed and rolled it in. A crop of barley had been taken from the ground, and the seed that shelled in harvesting, came up and produced a good swarth.

All the seed came well, and I found the turnips much too thick. Early in the 10th month we commenced thinning them, and pulled more than one-half of the plants, which gave a large quantity of valuable fodder for our cows. I think the fodder was worth more than the cost of thinning, so I have made no account of either. The weather being favorable, I thought it best to leave the turnips in the ground as late as it would answer, so we did not commence harvesting on this piece until the 20th of 11th month. We took off 142 bushels, or 125 bushels to an acre. The turnips were not large, from want of sufficient time to

grow in, but they were very good. The market price here is 25 cents a bushel, so the account stands thus:

Labor,—plowing, sowing and harvesting		$13,00
Manure		15,50
Seed		3,13
		$31,63
142 bushels turnips, at 25 cts		35,50
Leaving a nett profit of		$3,87

besides having a fair prospect of a good crop of grass next year, while on a part of the same field which was not plowed, scarcely any grass is to be seen. On that, I intend to sow grass seed next spring—a plan recommended by some people.

The result of this experiment is entirely satisfactory to me, and I confidently recommend others to try it whenever their grass seed fails in the spring; and my opinion is that it would be better not to sow it with grain, for there is always, on dry land especially, an uncertainty of getting a catch of grass seed. If I should try it again, however, and I intend to, I should not sow more than seven or eight ounces of turnip seed on an acre.

Will some one who knows give me the analysis of ruta-bagas, parsnips, sugar beets, and mangle-wurtzel, or the value of each compared with hay?

L. Varney.

Friends' Boarding School,
Providence, R. I., 12 *Mo.* 21*st*, 1852.

Remarks.—The analyses below were made, of the turnip and mangold-wurzel, by Sir Humphrey Davy, and of the sugar beet and orange globe mangold-wurzel, by Mr. Herepath, a celebrated chemist in Bristol, England.

Roots.	*Quantity of Nutritive Matter in 1000 parts.*			
Species.	Mucilage or Starch.	Sugar.	Gluten or Albumen.	Total of nutritive matter.
Swedish Turnips,	9	51	2	64
White Turnip,	7	34	1	42
Mangold Wurzel,	13	119	4	136
Orange Globe,	25¼	106¾	1·20	135¼
Sugar Beet,	17¾	126¼	1¼	146¾

Stephens, in his Book of the Farm, states that the quantity of nutritive matter in the ruta-baga is, in the white turnip from 8 to 13 parts in 100, and in the yellow turnip from 11½ to 17; so that 20 tons of one crop may be in feeding as 30 tons of another, which is an important fact, and may account for the discrepancies experienced by farmers in feeding stock.

We can give no comparison of the value of hay with turnips with sufficient accuracy to be introduced here. In a trial at Whitelaw, in England, between turnips, oil-cake and corn, in fattening cattle, the turnips were found to produce one pound of live weight much cheaper than either of the other substances. If such be the case with oil-cake and corn, we can see no reason why turnips should not possess the same advantage over hay. We have similar results related to us in this vicinity, but our experience has not been sufficient to warrant the expression of an opinion.

New Buildings.—We call attention to the article entitled, "That is my Home," and particularly of those about erecting new buildings. After reading it, most persons will be convinced that it is better to expend money in planting trees, shrubbery and flowers about a dwelling, than to expend it in making a *showy house.*

For the New England Farmer.

INDEPENDENCE OF THE FARMER.

Mr. Editor:—Everybody in America wants to be independent. We have lawyers, physicians, mechanics, ministers and farmers; all striving to obtain or secure independence; and all, in a good degree, feel satisfied with the result of their labors in this behalf. We glory in our political and religious freedom; all of us. Here, we are all equal, from the President down to the pauper; if, indeed, the down hill slopes in that direction, which is a question fairly debatable. But after all, there is no class among us so decidedly independent as the farmer.

Look at the minister! Does he dare give utterance to sentiments that he knows will be generally distasteful to his society? Does the lawyer want to displease his townsmen, on whom he may depend for a living? Or do the merchant and mechanic feel perfectly free, at the commencement of their business, when the good will of the community may be considered as a portion of their capital, to take decided positions on the unpopular side? There are many of these classes, to be sure, that feel as independent as the farmer; because, by success in business they do not feel the necessity of employing this *windy* capital, the breath of popular applause. So long as men see that their daily bread, in a good measure, depends on the esteem of their fellows they must be desirous of securing it. The mechanic depends in part, and principally, on his skill; and so of all professions. But they all depend also, in some degree, on the good will of others.

The farmer also, relies on his skill; but the opinion of his neighbor is not worth a groat to him, so far as his ability to live is concerned. He plants his fields, and the good Lord, who "sends his rain on the just and the unjust," makes no distinction. He waters the fields of the Whig, the Democrat, the Abolitionist, the Infidel, and the pious man, alike. The wildest fanatic in the country, by suitable tillage, may raise as good a crop as any one, and sell it as well. But let him attempt to live by preaching, as a merchant, or mechanic; how would he prosper? He would certainly be driven from the pulpit, and most likely starved from his shop. Professional men must study social laws. The farmer depends on the laws of nature. The former are always changing; the latter, never. Consequently, the professional man is often in a dilemma and hardly knows what to do, for fear he shall offend the popular taste or broach an idea not in fashion. The farmer says just what he pleases; for it never was yet discovered that it killed his cattle or rotted his potatoes. And the farmer has more leisure time than most mechanics or professional men. Or if he has not, it is his own fault. No farmer needs be a drudge. [a.] His flocks in the pasture and his crops in the field are growing while he sleeps. When the merchant or mechanic closes his shop, the income from his business is suspended. But the farmer's income

is always increasing. He relies on nature, who labors for him continually, and on nature's God who never slumbers.

If a young man wants to engage in business that will insure him in middle age the greatest amount of leisure time, there is nothing more sure than farming. If he has an independent turn of mind, let him be a farmer. If he wants to engage in a healthy occupation, let him till the soil. In short, if he would be *independent* let him get a spot of earth; keep within his means, to shun the lawyer; be temperate, to avoid the doctor; be honest, that he may have a clear conscience; improve the soils so as to leave the world better than he found it; and then if he cannot live happily and die contented, there is no hope for him. S. F., JR.

Lyme, Dec. 28th, 1852.

REMARKS.—[*a.*] We say so too. Even if he lacks capital to manage his farm matters as he would be glad to, he is out in the free sunlight, goes and comes as he will, sustains his health, and calls no man master. We thank you, friend "F.," for the utterance of these just thoughts.

For the New England Farmer.

GLANDERS IN HORSES.

MR. BROWN:—Having been a regular subscriber of your valuable farming journal from the commencement to the present time, I wish to inquire if you, some of your correspondents, or numerous readers, will *describe* the symptoms of glanders in the horse; also *prescribe* a cure, if any there is. Also the symptoms of horse ail with a cure. Also the best medicine for cleansing the blood of the horse, and you will greatly oblige a

Bridgewater, Jan., 1853. SUBSCRIBER.

REMARKS.—The first symptom of glanders in the horse is a discharge at the nose. Eventually pus (matter) mingles with the discharge. If there is a discharge from both nostrils the glands within the under jaw will be on both sides enlarged, and spots of ulceration will probably appear on the membrane covering the cartilage of the nose—not mere sore places, but small ulcers, with the edges abrupt and prominent. As the disease progresses, other symptoms appear. The hind legs swell to a great size, and become stiff, and hot, and tender. The membrane of the nose becomes of a dirty livid color, and the animal loses flesh and strength every day. The disease is almost always fatal. Various remedies are prescribed, but we have little confidence in them. Turn the horse to grass, if in the summer, and let him enjoy a pure atmosphere, and if he is occasionally giddy give him a few globules of stramonium.

The glanders is the most dangerous disease to which the horse is subjected; it is also infectious, both to man and beast.

There is some similarity between the disease termed "horse-ail," and the glanders.

The best medicine for "cleansing the blood of the horse," is careful attention, proper feeding, and demanding from him only a reasonable service in return. With these his blood will be pure, his spirits good, and he will yield you an annual profit.

For a full description of the horse and his diseases we refer you to Youatt on the Horse, published by SAXTON, N. Y., price $1,25, or to one of Saxton's Rural Hand Books, on Horses, their Varieties, Breeding and Management in Health and Disease, by H. D. Richardson, price 25 cents. Or to Cole's Book on the Diseases of Animals, published by J. P. JEWETT & Co., Boston, price 50 cents. In these you will find full treatises on every thing relative to the horse.

For the New England Farmer.

ALUM.

The alum of commerce consists of sulph. acid, alumina and potash. Alumina is never found pure in nature except in the ruby and sapphire, which consist of crystalized alumina combined with some coloring matter. Alum is the basis of all clay soils, in which it is always combined with silex or sand. The purity of the clay used in the arts, depends upon the greater or less amount of sand combined with it. Clay has a strong affinity for water, and absorbs and retains it in large quantity, thus rendering the soil in which it abounds, wet and cold.

It is very adhesive. Its particles have a strong attraction for each other, rendering the soil firm and compact. Much force is required to plow or work it. The roots of trees and other vegetables penetrate it with difficulty. Hence a strong clay soil is both difficult to cultivate and unproductive. It requires sufficient sand mixed with it to separate its particles, and overcome their tenacity, so that the tender and delicate radicles of plants can readily penetrate them. In a sandy soil, the particles are so loosely attached to each other, and have so little tenacity, that water percolates freely through them, and sufficient moisture is not retained to supply the demands of vegetation.

A mixture of these two elements in suitable proportions constitutes the basis of all good soils. Different vegetables require different proportions of these ingredients. Some require more clay and some more sand, some love a moist soil and some a dry one. Clay has another property also, besides that of absorbing and retaining moisture, which is of immense importance to vegetation. It has a strong affinity for carbonic acid and ammonia, and when turned up by the subsoil plow, it rapidly condenses them from the atmosphere.

In light sandy soils, a certain amount of clay is always found, commonly from ten to fifteen per cent. A sandy loam contains from thirty to forty per cent. of clay. A clayey loam seventy to eighty per cent. The stiffest clay soils contain from eighty to ninety per cent.

It is often desirable to ascertain what proportions of clay or sand are found in particular soils. This may be done with sufficient accuracy for all agricultural purposes, by putting a portion of the soil into five or six times its weight of water, shaking it smartly, and pour in the mixture into a deep glass vessel or tube. A common lamp funnel, with one end set upon a ball of putty or clay, will

answer very well. Leave the mixture at rest in the glass. The coarse sand will soon be seen collecting at the bottom. The finer sand will form a second layer, and the clay the upper or third layer. By observing the amount of each thus deposited, we may obtain a sufficiently accurate notion of the proportion of each ingredient in the soil.

A good soil must have clay enough to retain the water, the carbon, the lime, the ammonia, and other aliments that minister to the growth of plants, so that they may be found and absorbed by the roots, as they stretch themselves among the particles of the soil, feeling after the kind of nutriment which they need. At the same time it must contain sufficient sand, to allow the surplus matter to settle through it, or evaporate from it, so that the soil shall not be too wet or too stiff. Different vegetables, as has been already remarked, require different proportions of these elements.—Herdsgrass is fond of a moist soil, containing a large proportion of clay, while clover delights in a mellow, loamy soil. Rye thrives best in a warm, sandy soil, while wheat requires a stronger soil, with a larger proportion of clay. Both require a good supply of lime. The art of mixing soils in proportions, suited to the crops that are to be put upon them, is one of the most important that can engage the attention of the farmer. Whenever Massachusetts shall establish an agricultural college, the study of this subject will demand its share of time and talent. The ancient Italians, as we learn from Virgil, understood that certain soils were suited to certain crops; but it does not appear that they knew how to supply the elements that were wanting, or to neutralize those that were injurious, by the addition of others, that would combine with them, and form useful, or at least innocent compounds. This is an art that belongs to modern times. It has received but little attention, as yet, in this country. Its importance will be more and more estimated, as manures become more expensive, and more difficult to obtain.

Concord, Nov. 9. J. B.

OFFICERS OF COUNTY SOCIETIES.

The following is a list of the officers of the HAMPSHIRE, FRANKLIN AND HAMPDEN SOCIETY, for 1853.

President—PAOLI LATHROP, South Hadley.
Vice Presidents—George W. Hubbard, Hatfield; William Clark, Northampton; Elisha Edwards, Southampton; George Dickinson, Hadley; Christopher Wright, Northampton.
Treasurer—S. L. Hinckley.
Secretary—William O. Gorham.
Auditor—L. I. Washburn.

FRANKLIN COUNTY SOCIETY.

President—HENRY W. CUSHMAN, Bernardston
Vice Presidents—Asa Howland, Conway; Zebina Stebbins, Deerfield.
Secretary—H. G. Parker, Greenfield.
Treasurer—A. G. Hammond, Greenfield.

HAMPSHIRE COUNTY SOCIETY.

President—ALFRED BAKER, Amherst.
Vice Presidents—Edward Dickinson, of Amherst; Linus Green, Hadley; Edmund Smith, South Hadley; Israel Towne, Belchertown; N. Austin Smith, Sunderland; Samuel Wells, Northampton.
Secretary and Treasurer—J. W. Boyden, Amherst.

LIME WATER FOR HENS.—*Accidental Discovery.*—During the last season, Mr. Joseph Wilcox, of this town, having occasion to administer lime water to a sick horse, inadvertently left a pail of the preparation in his barn, which remained there for some months, serving as a favorite drink for his hens. He soon afterwards found that the laying of his hens was apparently increased to a considerable extent. Being convicted of the importance of the (to him) new discovery, he has, during the present season, kept his hens constantly supplied with lime water, placed in troughs within their convenient access, and the result was an increase in eggs of nearly four-fold as compared with previous experience. He is willing to share the benefits of the experiments with his neighbors if they choose to try it; and hence this publication. The newness of the discovery (though it may not now be new to all,) is claimed only as applicable to the mode of imparting the lime in this case—its use in another form for the same purpose, having been previously understood by many.—*Wayne Sentinel.*

For the New England Farmer.

THE CHESTNUT TREE.

GENT.:—Sometime since, I sent to the agricultural warehouse in Boston to get some chestnuts to plant, but failed to get them. I can get enough of them at the stores, and wish you, if you will, to inform me if those will answer to plant; how they should be kept through the winter to plant in the spring, and whether it would answer to plant them this winter, if I should catch the ground open. Yours, &c., N. J. THOMAS.

Eden, Maine, Jan., 1853.

REMARKS.—The chestnut, both on account of its timber and the fruit it produces, deserves more attention than it receives. The nuts intended for planting should not be allowed to become thoroughly dry. Those having been kept in quantity in the stores would probably sprout. They should be kept slightly moist through the winter, and planted in the spring. Nature plants them in the autumn and covers with a thick coat of leaves; but it is probable that large numbers of those spared by the boys and squirrels never germinate, for want of being placed under favorable circumstances of light and warmth. It is said that they need protection the first winter, as there is danger of their being killed by freezing. In transplanting, the next spring they require much the same attention as other trees, but without so rich a soil as is required for fruit trees. In Italy, chestnuts grow to the size of small apples, and are used for food by the peasantry.

At a farmers' meeting, in New York, Mr. Rice, speaking of planting chestnut timber, remarked, that he plowed up a tract of unproductive hill side, several years ago, and planted it with chestnuts, in rows four feet apart every way. The first sprouts coming up rather crooked and scrubby, he went over the field and cut them down close to the ground, which caused new shoots to spring up straight and vigorous. The trees are very thrifty, completely shade the ground, and grow more and more rapidly as the soil becomes strengthened by the annual deposit of leaves. So well satisfied is he with the experiment, that he is now placing

other worthless lands in a similar course of improvement.

Emerson, in his "Trees and Shrubs," says the chestnut tree is found on the banks of the Mousum River, in the county of York, Maine, a little beyond the 43d parallel of latitude, and thence southward, as far as Florida, and in the Western States. It is found in every part of Massachusetts, but does not readily and abundantly ripen its fruit in the immediate neighborhood of the sea.

Michaux says chestnut copses are considered in France as the most valuable species of property; every seven years they are cut for hoops, and the largest branches serve for vine props; at the end of 14 years they furnish hoops for large tubs, and at the age of 25 years they are proper for posts and light timber. The chestnut grows well on rocky hills, and other lands hardly rich enough for cultivation.

MAN AND HORSE.

When a horse does little work, we give him less attention—when not worked at all, we know that mischief will result, unless he is well exercised. When a horse is hard worked we know it to be impolitic to load its stomach while suffering from fatigue. When a horse comes in from a journey, a groom knows that its health depends on its skin being freed from the dust and perspiration, and also that the animal can not be comfortable unless cleaned once a day. If its food does not agree with it, the groom varies it in quantity and quality or both. No sensible owner lets his horse drink while in violent perspiration, nor do more than rinse its mouth, but will let it drink its fill about an hour before its meals, neither allowing it to load its stomach with liquid either at meals, or when hard work is immediately to follow.

This is all sound physiological treatment, drawn from a watchful observation of the effects of a regulated diet and regimen on the health and capabilities of the animal. How differently man acts to himself. When he is streaming with perspiration and giving orders for careful attention to his horse, he will walk into a refreshment or even an ice-cream! *His* diet is regulated by his tastes and cravings; the quantity varies not with his exertion or labor, but with his palatability. His meals consist of dishes proportionate to the length of his purse. The times of eating depend on business, fashion, or anything but his physical wants. His drink also is taken according to his inclinations, or according to the society he mixes with, and quantity or quality vary *only* with his palate and means! Those who work least, generally fare the richest. The skin of a horse must be kept clean or disease ensues, but the horse's master is heedless of this, and when visited by disease, wonders how it happened! Surely man is the most inconsistent animal on earth!

Saddles.—The clearest proof of the antiquity of saddles, says Beckmann, is the order of the Emperor Theodosus, in the year 385, by which those who wished to ride post-horses were forbidden to use saddles that weighed more than sixty pounds. If a saddle was heavier, it was cut to pieces. Saddles in the fifth century, must have been very splendid; so much so that a prohibition was issued by the Emperor Leo I., in which it was ordered that no one should ornament them with pearls or precious stones.

OLD MIDDLESEX.

The annual meeting of the Trustees of this county took place at Concord, on the 5th Jan., 1853. They decided that the next exhibition of the agricultural society shall be holden at Concord, on the first *Tuesday* and *Wednesday* of Oct. next, it being the 4th and 5th days. This society heretofore has occupied but one day in its annual exhibition. The committee of arrangements were instructed to provide accommodations for ladies at the dinner table on the second day of the show. This is another new feature and a most commendable one, we think, in this old society. The difficulty has been heretofore, we understand, that no room large enough to contain more than the members of the society could be obtained. The Trustees propose now to purchase land, enclose it with a substantial tight fence, and erect buildings for the accommodation of the fruits, vegetables, flowers, household manufactures, and machinery and implements, where they may all be exhibited under cover. This will leave the spacious and beautiful hall recently erected in that town to be occupied for the dinner, where some five to seven hundred persons may be seated.

In addition to the usual exhibition, a *Spading Match* has been directed; the premiums offered are five in number, consisting of 5, 4, 3, 2 and $1.

A new premium of $10 will also be offered on a single team of one pair of oxen, driven only by those who have already taken the society's highest premium on plowing.

For the New England Farmer.

DOOR YARDS.

Messrs. Editors:—By your paper, I learn that the Hon. Josiah Quincy, Sen., is still at the good work of giving encouragement to agriculture, by addressing the farmers at a cattle show dinner; and in the same paper, I saw an article in reference to clean door yards. More than thirty years have elapsed, since I saw in one of Mr. Quincy's addresses at an agricultural dinner, the following paragraph, which will serve as his opinion at that time. If I do not use the precise words of the venerable author he will excuse me, as I accidentally saw the address while travelling in an adjoing State.

"In viewing the farm we will stop at the door; far be it from me to enter, for where neatness and economy reign without, the husband seldom fails to be seconded by his companion within. But how is the path? Is it a pavement inlaid with broken crockery and abandoned utensils of household furniture? Do the thistle, the briar and the wormwood contend for the mastery along the fence?—Are the poultry roosting upon the window sills,

the geese strutting at the front door or the pig playing puppy in the entry! The proprietor of such an abode may call himself a farmer, but practically speaking, he is ignorant of the a, b, c, of the art, for the first three letters of the farmer's alphabet are neatness, economy and order.

Hardwick, Dec. 29, 1852. Walter Mandell.

For the New England Farmer.

ON PRODUCING FRUIT TREES FROM SEEDS.

This seems to many an uncertain business—besides they want a quicker way. Others are willing to take time to do anything the best way, if they could know what that is. Others still go in the beaten track, buy their trees to set of a nurseryman, and leave it for those who can afford it, to *think* and make *experiments*. While the pomologist observes the uniformity of Nature's operations, in every species and variety of fruit, leaf, blossom, branch and trunk; fruit, color, flavor and time of ripening, hardiness and productiveness; learning the characteristics of each class and kind —constantly inquiring for her laws and productions, and delighted with every new discovery, acts with her, and with safety, certainly and success. Now, Mr. Editor, for the gratification of this class, and the benefit of all, permit me through your columns to share with *them* the pleasure and profit I have derived, as a learner from Nature's teachings.

In past years, the country farmer used to select his best apples for eating and market, and make the rest into cider. The pomace was spread from which to raise a nursery. Of course, these seedlings were of the poorest quality. The trees might be hardy and good bearers, and grafting was resorted to, for obtaining choice varieties, by the most enterprising. Still, the *best fruit* was sold or used for eating, never sowed; and nurseries still raised from the pomace of the *poorer kinds*, budding them when small, became at length quite a business as the only way of securing desirable fruit. Not unfrequently, scions of *different kinds* were set in one tree. In towns near the market, (say Boston) more choice fruit was raised, and sometimes a fair seedling was allowed to stand and bear, and perhaps a new and valuable sort obtained, say a Porter, by chance. Now supposing (what I consider to be certain) that this *seedling* was from a *good apple*, perhaps partaking the nature of two kinds growing on the same tree or near each other, one earlier than the other and less acid, this would account for its difference in flavor, and time of maturity. Suppose another *seedling* resembling Baldwins in form and the habits of the tree, but fruit of a different flavor, could not this be produced from seed of a Baldwin apple, affected by another whose flavor it partook?

I have spoken only of *apples;* but I think the principle will apply to *different species* of fruit trees, standing in proximity, and in blossom at the same time. By mingling the pollen, the habits of the tree and flavor of the fruit may be affected, and thus while some of the original kinds, many of new varieties may be produced from the seed taken from orchards containing many kinds.

Let it be observed, no tree can contribute to produce seed different from itself. *Good trees* mingling can produce only good fruit. Two trees mingling cannot produce more than one *new variety*. Sweet varieties cannot produce sour, nor can early apples produce late. Or different varieties of winter and sour mingling produce a variety of sweet or early. So it is easy to see why *valuable* new varieties of seedlings may be obtained from, or near our market towns and cities, and the great improbability of getting them from the pomace of the poorest.

Again, if as I suppose, seedlings far surpass engrafted trees in longevity, and are certain to have a uniform character, which one budded or engrafted may lack (by reason of difference between the stock and scion, especially when one is early and the other late,) there are at least two reasons favoring the seedling. If great improvements in the habits of trees are possible, probable, and as I think certain, by combining hardy with delicate trees,—the constant and large bearers with the sparse—those of rapid growth and early maturity with slow, late, &c., as well as the acquisition of new and choice varieties, it would seem to accord with the spirit of the age to attempt it, though like many other discoveries, it might displace existing operations.

I might show the analogy between this and *stock breeding* and the *evidence* that "these things are so"—not speculations, and give some thoughts I have had on ways of *protecting* trees from mingling, and of obtaining *pure seed* and choice varieties for nurserymen as a business which, if desired, I will give you in another article.

Before closing, I wish to say something about vegetables.

For some years, I have been trying to improve some kinds. The first attempt was with sugar beet. Finding the French seed grew *more than half out of the ground*, and that part was woody when ripe, (tough) of little value, I determined, and succeeded in three years to obtain a crop of equal weight, grown under ground, all white and tender with small tops. Next I set about a change in my carrots, which, though very large, were very tapering. I am much gratified with my late crops. They hold their bigness remarkably. I would like you to see some selected for seed when I *dug* them (as I always do) and their size a *foot from the top;* and to furnish seed, and one carrot from each of three kinds, Orange, Purple and White Belgian, from which to get a *plate* and exhibit in the store and in your journal, that Yankees might see the article from which the offered seed was raised.

Some years since, in pulling my English turnips, (raised from imported seed) though a great yield, they run quite too much to tops with dishing crowns. Finding one only, with a small top and small root, shaped like two saucers put together, I preserved it for seed, and the next year sowed what I got from it, among my potatoes, then beginning to be affected with disease. They mostly died; but I got 75 bushels of turnips "true to the seed." I saved and set out 8 bushels of the most beautiful I ever saw. This was in Springfield. All who saw them admired them, and spoke for some of the seed, which I circulated freely at $1 the pound. *Tops* barely enough to pull up the single root, not much bigger than a pipe-stem. They were good as handsome. All this goes to encourage me in selecting the best roots and employing the best *means* possible, for

obtaining the very best seed, from which to secure the reward for the best care and culture of the orchard, field and garden.

Yours, truly, BENJAMIN WILLARD.

Lancaster, Jan. 1, 1853.

VEGETATION OF THE ARCTIC REGIONS.

The soil is always frozen, and merely thaws during the summer a few feet below the surface. But the thawing is by no means uniform. In peat it extends not deeper than two feet, while in other formations, especially in sand or gravel, the ground is free from frost to the depth of nearly a fathom; showing that sand is a better conductor of heat than peat or clay, corroborating the observation of the accurate J. D. Hooker, who, after a series of experiments in India, arrived at the same conclusion. The roots of the plants, even those of the shrubs and trees, do not penetrate into the frozen subsoil. On reaching it, they recoil, as if they touched upon a rock through which no passage could be forced. It may be surprising to behold a vegetation flourishing under such circumstances, existing independent, it would seem, of terrestrial heat. But surprise is changed into amazement on visiting Kotzebue Sound, where, on the tops of icebergs, herbs and shrubs are thriving with a luxuriance only equalled in more favored climes. There, from Elephant to Eschscholtz point, is a series of cliffs from seventy to ninty feet high, which present some striking illustrations of the manner in which arctic plants grow. Three distinct layers compose these cliffs. The lower as far as it can be seen above the ground, is ice, and from twenty to fifty feet high. The central is clay, varying in thickness from two to twenty feet, and being intermingled with remains of fossil elephants, horses, deer, and husk oxen. The clay is covered by peat, the third layer bearing the vegetation to which it owes its existence. Every year, during July, August and September, masses of ice melt, by which the uppermost layers are deprived of support, and tumble down. A complete chaos is thus created: ice, plants, bones, peat, and clay, are mixed in the most disorderly manner. It is hardly possible to imagine a more grotesque aspect. Here are seen pieces still covered with lichens and mosses, there a shoal of earth with bushes of willow. At one place a lump of clay with senecios and polygonums: at another, the remnants of the mammoth tufts of hair, and some brown dust, which emits the smell peculiar to burial places, and is evidently decomposed animal matter. The foot frequently stumbles over osteological remains, some elephants' tusks measuring as much as twelve feet in length, and weighing more than two hundred and forty pounds. Nor is the formations confined to Eschscholtz Bay. It is observed in various parts of Kotzebue Sound, on the river Buckland, and in other localities; making it probable that a great portion of extreme Northwestern America is, underneath, a solid mass of ice. With such facts before us, we must acknowledge that terrestrial heat exercises but a limited and indirect influence upon vegetable life, and that to the solar rays we are mainly indebted for the existence of these forms which clothe with verdure the surface of our planet.—*Botany of the Voyage of H. M. S. "Derald."*

For the New England Farmer.

ON POULTRY.

MR. EDITOR: — I keep a few native fowls, expressly for the profit of the eggs; I raise no chickens to sell; and I profess no skill in raising chickens. As I am often inquired of whether I get eggs enough to pay the expense of keeping, I thought I would send you a fair statement of the expenditures and income of the year 1852, commencing January 1; and if you see fit to give it a place in your columns, each one may judge as to the profit for himself.

Jan. 1, 1852—32 hens, worth 25 cts. each	$9,75
They consumed 29 bushels of corn	22,09
Do. 4 bushels buckwheat	2,00
Do. 1¼ bushels of oats	67
Do. 7½ lbs. meal	11
4 hens bought in the fall	67
Making the expenses	$35,41
Income—No. of eggs sold, 363 dozen	$54,80
2 hens raised and killed	33
Hens on hand Jan. 1, 1853—40, worth 25 cts. each	10,00
Income	$64,93
Subtract expenses	35,41
Actual profits	$29,52

Which bears a profit on each hen of 75 cents and nearly 6 mills. You will see that I make no account of interest on the hens I started with, and I give no credit for manure, which I consider very valuable on my land,—more than the interest on $9,75. And I have given no credit to the hens for the eggs used in a small family. Eggs sell much lower in Berkshire county than in the eastern counties. I have sold the past year 143 doz. for 12 cts. per doz., and some others for 12½ cts.

Hinsdale, Jan., 1853. J. ABBOTT.

For the New England Farmer.

CULTURE AMONG TREES.

In a recent number of the *Farmer*, I noticed an article speaking discouragingly of culture among fruit trees. I was surprised at this, because my own observation has been, that the keeping the ground light, and well pulverized about trees, even as far as their limbs extend, and occasionally dressing the ground with some fertilizing substance, improves their growth, and their bearing qualities. So fully have I been persuaded of this, that I have thought their products, in a series of *ten years*, would be doubled by so doing. I know that a large proportion of the apple trees on our farms, stand in the fields or pastures, where the grass grows about them, receiving no culture or attention whatever; and more than half the time, yielding little or no fruit. Some trees standing thus yield fruit in abundance. But as a general thing, those trees which are best cultivated, bear best, both in quantity and quality. So fully satisfied are the dealers of fruit in our markets of this, that they will readily pay from *six to ten per cent.* more, for fruit that grows on cultivated grounds.

That trees are sometimes injured by carelessly holding the plow, whereby the roots are broken, and the bodies barked, there can be no doubt. Such culture is not to be commended. This, I think, must have been the kind of culture condemned by your correspondent from Maine. I presume the same kind of usage, would be equally injurious to vegetables.

I know one orchard of forty Baldwin apple trees,

that yielded more than three hundred barrels of fruit of best quality, the past season;—and about the same quantity in the season of 1850. The ground about these trees has been kept in a perfectly pulverized state for a half a dozen years or more, and manured like a garden. Can any one doubt that the proprietor has found the reward of his labor, in the abundance and quality of his fruit?

The benefits of such culture is particularly seen, in relation to the *Danvers Winter Sweet*. When fully cultivated, it yields fruit large, fair and bright;—when left with the grass growing under and about the tree, the first is dwarfish, spotted, and oftentimes knurly. The same is true, to a great extent, in relation to the Baldwin, both of which, I have often observed. P.

Jan. 10, 1853.

Remarks.—We fully agree with our intelligent correspondent in what he says above. Some remarks which we have made on the subject of cultivating orchards, were with the intention of cautioning persons against entering their orchards with large plows and heavy teams and tearing up the earth and roots, as they would those in reclaiming a meadow.

Our own practice is to cultivate where the trees are compact, and to dig around and manure those standing in pastures, once or twice a year.

ACKNOWLEDGMENTS.

From Mr. Asa Clements, nurseryman, Dracut, fine specimens of the Winter Green Sweeting, Mother Apple, and Jewett's Fine Red. The first is rather too dry—the other two apples of fine flavor and well worth cultivation if they are good bearers.

Also, later, a box of fine apples from Mr. Clements, of Dracut. With some good judges we have tasted the fruit and do not think his recommendations too high, and so stand aside and let him speak for himself. He says,

I send you six varieties of apples. No. 1. *Minister*, a well known variety in Essex County: with me, it is not strong and vigorous in the nursery, but is hardy in the tree, and produces enormous crops of fair and good keeping fruit.

No. 2. *President*.—The original tree is now standing on the farm of Capt. John White, (I think it is John) in Salem, N. H. It was in a bearing state, when *Washington* was inaugurated *President*, and was named for him. I have seen it full of showy fruit twice within a few years. The tree now looks *venerable* and healthy, and as though it might outlive the people of Pelham, and a large portion of "the rest of mankind." In the nursery, rather vigorous.

No. 3. *Mother*.—This variety I have once only, fruited, and these specimens are a portion of the crop. In my judgment it is one of the best apples extant, and should think from appearances quite *prolific*; though on that point, the short experience I have had will not enable me to determine with accuracy.

No. 4. *Jewett's Fine Red*, or *Nod-head*.—This apple, I have been informed is addicted to the naughty (knotty) habit of growing unfair for two or three years when it first begins to bear, and as far as my own experience will enable me to judge it sustains that reputation to the fullest extent, albeit it is a fine apple, and worthy of cultivation. *Young trees* are tolerably vigorous and form beautiful heads, well balanced, between the upright and horizontal.

No. 5. *Red Cheek*.—A local name, scarcely known out of Dracut; matures immediately after the Porter, Oct. and Nov., and fills a space that is almost a vacuum hereabouts so far as good apples are concerned. I had about three bushels which were the most beautiful in appearance, and I had almost said, in quality, of any apple on my farm. I certainly sold them better than any other, this season, except the *Early Sweet Bough*, which always commands a good price on account of its good qualities and early maturity. They grew on one side of an old tree grafted four or five years ago, with three other sorts, on other parts of the same tree. It grows well, and bears ditto; young trees strong and vigorous, and I regret that through negligence or some other cause, they have been permitted to dwindle nearly out of the nursery. They shall be renewed.

No. 6. Name unknown, a late fall apple; my father brought the scions from Vermont a few years since. It was there called *Red Cheek*, which name appears to be a *misnomer*, as there is seldom any *blush* upon them, except on specimens much exposed to the sun. Young trees hardy and pretty fair growers, and in my estimation it is deserving a *name* and *cultivation*. Please make the best use of the *single specimen* I send.

Asa Clement.

Dracut, Jan. 13, 1853.

For the New England Farmer.

DEATH OF WM. G. LAKE, ESQ.

Died in Topsfield, on the 10th inst., Mr. William G. Lake, aged 45 years.

Mr. Lake was somewhat extensively known, as a horticulturist and dealer in nursery trees. He had devoted his whole time and energies, for the last fifteen years, to the cultivation of fruit and fruit trees. He had spared no pains or expense to procure the best varieties for cultivation. He had made himself practically acquainted with the growing of trees, and of performing the various nursery operations.

For several years past, his tables at our agricultural and horticultural shows have not been surpassed by any other contributor.

He had, for several years, supplied the vicinity with fruit trees, and several parts of the commonwealth, the southern parts of New Hampshire, and even the inhabitants of California will soon be gathering fruit from trees sent out by Mr Lake, and which were raised on the soil of Topsfield.

Mr. Lake has sold trees from 25 cents to 25 dollars apiece. He has left on his grounds, (ten acres) between twenty and thirty thousand worked fruit trees from one to four years old, on the bud, for transplanting, besides leaving the grounds supplied with standard trees, just beginning to bear fruit; various ornamental trees have had a full share of his attention.

The town of Topsfield is indebted to Mr. Lake

for the building up of quite a village, ornamented with a variety of forest trees and shrubbery, where fourteen years ago, but one single dwelling, and a tall pine tree, relieved the monotony of mossy stone walls that bordered the highway.

Mr. Lake has certainly left a growing and enduring memorial of his industry, activity and taste.

About a fortnight before his death, he met with an accident on Charlestown bridge, from which he had very nearly recovered, when he was attacked with inflammation of the chest, three days before his death. He leaves a wife and three children, who, for their great and sudden bereavement, have the deep sympathy of the public.

Topsfield, Jan. 14, 1853. M. A. R.

MASS. STATE BOARD OF AGRICULTURE.

WEDNESDAY, JANUARY 12, 1853.

Gov. BOUTWELL in the chair. The proceedings of the last meeting having been read, the Secretary read a letter from the Hon. LEVI LINCOLN, brother of the lamented Col. JOHN W. LINCOLN, a late member of the Board, in reply to a letter of condolence from the Board. Also, a letter from the Worcester Society announcing the election of HARVEY DODGE, Esq., of Sutton, as a member of this Board as successor of Col. Lincoln.

A letter from M. VATTEMARE was read, acknowledging the receipt of certain agricultural documents from Mr. Walker, Secretary of State.

Mr. JOHN C. GRAY reported on orchards.

Mr. SPRAGUE, of the Plymouth Society, reported on the Barnstable and Bristol Societies.

Prof. HITCHCOCK reported upon the Essex County Society.

Mr. BREWER reported on the Worcester West Society.

Mr. LAWTON reported on the Housatonic Society.

Gov. BOUTWELL reported on the Hampshire, Franklin and Hampden Societies.

Prof. HITCHCOCK read a paper recommending the establishment of Farmers' Institutes throughout the Commonwealth, similar to the Institutes for the promotion of education. The following are the leading suggestions of the paper:—

1. A vast amount of knowledge concerning the principles of agriculture could be imparted to the farmers in every part of the State. It would, in fact, form an *ambulatory agricultural school*, where the young, especially, would learn very rapidly from the best masters.

2. It would give an opportunity to men well qualified, after looking at the chemical and geological constitution of the soil, to make suggestions to the farmers of the different districts as to improved modes of culture.

3. It would furnish a good mode of communicating intelligence to the farmers of discoveries and improvements in agriculture, of distributing new varieties of seeds, and making known new and improved breeds of domestic animals.

4. It would probably bring to light new animal manures in different parts of the State by the researches of the lecturers, and of the farmers after they were put upon the track.

5. It would awaken a deeper interest in agricultural pursuits, and give them increased respectability.

6. Opportunity might be given during the meetings of the Institute for visiting some of the best conducted farms and gardens in the vicinity, and thus witnessing the operations of scientific principles.

Mr. BROWN read a report upon the Education of the Young Farmer.

Mr. BREWER presented a report on laying down land to grass.

Mr. PROCTOR moved that the subject of electing a Secretary be now taken up.

Mr. WILDER, from the committee appointed to present the names of candidates, said he had no written report to make, but would state that the names of several gentlemen had been recommended from various parts of the State, which names he would report if the Board desired it.

Mr. FESSENDEN, of Sandwich, moved that the further consideration of the election of a Secretary be postponed until the next meeting of the Board, and that the present Secretary continue to act until another is appointed.

On motion of Mr. FRENCH, it was voted that when the Board adjourns, it adjourns to meet again on Tuesday, the 25th inst., at 10 o'clock, A. M.

Mr. LAWTON reported on Indian Corn.

Some arrangement was made in regard to the meeting of the several County Agricultural Societies.

Mr. PROCTOR, from the committee appointed to examine the *Progressive Farmer*, a work by Mr. J. A. NASH, Teacher of Agriculture in Amherst College, made a favorable report, and recommended its use as a reading book in common schools.

And at a quarter past 6, P. M., the Board adjourned to meet as above stated.

HOPS.—Quantity in market at present time for sale, 150 to 200 bales; will not exceed the latter. Quantity in hands of growers, to come to market, will not exceed 1000 bales, making 1150 to 1200 bales, against about 1000 bales in market, and in hands of growers to come to market, last year at this time. The quantity exported since the 1st of September, will reach nearly 600 bales, purchased in this market, a large proportion of which was sent to New York, and shipped from that port.

The statement in the *Courier* 4th inst., and the Boston Shipping List of Saturday, is very wide from being correct, and will have a tendency to mislead both growers and consumers, if not corrected; (whether the statements referred to were made designedly or not the author can best answer.) The above statement is correct, and can be relied upon.

Sales have been made within the last week, of 125 bales at 19a20 cents, first sort. W. B.

☞ The following remarks by the Hon. R. B. Hubbard, which are copied from the *Plow, the Loom and the Anvil*, are interesting inasmuch as they show the doctrine heretofore entertained in respect to the degree of intense cold fatal to the peach bud is erroneous. We have heard other New England authority stating that the peach bud outlived last winter a degree of cold equal to 26 deg. below zero. We are however by no means inclined to believe in the opinion set forth in this article, that budding of itself enervates the health and vigor of the peach tree. A well-grown specimen of the peach raised by budding is quite as hardy, in our opinion, as a tree of the same sort from a pit. It is next to impossible that it should be otherwise. Some varieties are hardier than others, but the difference in vigor proceeds from causes other than the mode of propagation.

PEACH TREES.

For a few years past we have been encouraged in the belief that we could raise peaches in Massachusetts—that we should not be always dependent upon New Jersey and Delaware for this most delicious of fruits. But the result of the last winter has terribly shaken our faith. I have never known such destruction among fruit trees of any kind. I have been in each of the New England States, and find that the remark is true of all.

A large portion of the trees, probably one-third, were killed outright. Of the remaining portion, a moiety came out unscathed, while much the larger part show signs of sickly life, here a bud and there a limb; of fruit there will of course be but very little. Many gardeners are discouraged, and say it is of no use trying to raise peaches in New England. Many years will elapse before we shall be permitted to witness such a crop of peaches as last autumn.

But I took my pen to submit some queries which have arisen in my own mind touching the culture of the peach.

It has been asserted by writers of distinction, and generally believed, that the peach bud would not endure a greater degree of cold than 12 deg. below zero. The correctness of this is disproved by last winter's experience. In this place, the mercury frequently sank below 12 deg., and three times, as low as 20 deg. Yet, there are some peaches this season. I have seen three trees, standing together on the sunny side of a dwelling house, which appear as healthy as ever, and are burdened with fruit; while nineteen-twentieths of the trees in town had not a blossom, and at least three-fifths were killed. In some places, trees standing on the north side of buildings were uninjured, while those on the south side were killed. In the hilly towns of Worcester county, also in York county, Maine, the trees have suffered comparatively little; while in the valleys of the Connecticut and Merrimac most of the trees are dead. I notice also that in the same locality the trees which have survived are those which have grown slowly, while those which have made rapid growth, have verified the adage, "soonest matured, soonest decay." Another fact I notice; the trees which survived are mostly natural fruit. In my garden were twelve trees of budded fruit; every one died. In the garden of a neighbor near by, with similar soil, were about twenty trees of natural growth, all of which are alive and doing well.

From these facts I draw the following inferences: the surest way of raising the peach is the natural way—from the stone. Like produces like in the peach almost as surely as in corn. The natural tree is hardy, even in cold New England, after bearing twenty years. The artificial is always delicate—seems an exotic—a hot house plant, whose life is as a vapor. The growth of the tree should never be forced. If the soil is rich, growth should be retarded, by placing underneath the tree gravel and sterile earth.

The observance of these two simple rules, I believe will insure us good peaches, and in abundance, even in Massachusetts.

What say you, Messrs. Editors, to this *radicalism?*

R. B. Hubbard.

Sunderland, Mass.

U. S. AGRICULTURAL SOCIETY.

The Recording Secretary, Robert C. Walker, Esq., has issued the following notice, which we take pleasure in placing before the public.

"The first Annual Meeting of the United States Agricultural Society will be held in the Smithsonian Institute, Washington City, on Wednesday, the 2d day of February next, at 10 o'clock, A. M.; the Officers of the Society for the ensuing year are then to be elected. The importance of strengthening in its infancy an Institution which has for its object the promotion of our National Agriculture, it is hoped will secure the attendance of a large number of members."

It is earnestly hoped that all the officers of our County Societies will become members of the National Association, by sending their names and the initiation fee of $2 by the delegates from their respective Societies. This National Association needs now, especially, the countenance and support of those who feel the importance of a more enlightened system of agriculture throughout the country.

We will not doubt but that the government will before long lend its aid to the noble work begun; not by granting any special privileges to the farmer—that we do not ask—but by taking such a sure and liberal course as shall promote its own interests and strengthen its own hands. But as the people are always in advance of the government, it is necessary for the present to sustain the great national movement by individual effort.

Vocal Machinery of Birds.—It is difficult to account for so small a creature as a bird making a tone as loud as some animals a thousand times in size; but a recent discovery has shown that, in birds, the lungs have several openings, communicating with corresponding air bags or cells which fill the whole cavity of the body from the neck downwards, and into which the air passes and repasses, in the progress of breathing. This is not all; the bones are hollow, from which air pipes are conveyed to the most solid parts of the body, even into the quills and feathers. The air being rarefied by the heat of their bodies, adds levity. By

forcing the air out of the body, they can dart down from the greatest heights with astonishing velocity. No doubt the same machinery forms the basis of their vocal power, and at once resolves the mystery.

BULL RINGS.

"Put not your trust in princes," is good sound doctrine, and we wish to add, as somewhat more in our line,—*nor in bulls.* These animals may be docile and manageable for years, and then suddenly become dangerous, and destroy limb and life. A farmer in S. had a fine animal, which he had been in the habit of fondling in the pasture, and who never had shown any vicious propensities; but upon neglecting these attentions, one day, the bull suddenly turned upon and wounded him so that he lived but a short time. They should never be trusted. The insertion of a ring in the nose is not a cruel process when properly done,—not as much so as the heathenish practice of boring the ears of children. With a suitable punch, a little larger than the ring to be inserted, the cartilage of the nose may be perforated at a single blow, with very little pain. The ring may then be put in place and screwed together, and the wound will soon heal over. In this manner the most fractious animal may be managed with too much trouble.

MANURING FRUIT TREES.—Many fruit trees which have been considered valueless, may be recovered by being manured in fall and winter; and during warm days when the surface of the soil is not frozen, even stimulating manures may be applied, with impunity and covered with earth. Thus Peruvian guano, now applied, will be so divided through the soil by spring, as not to injure the young spongioles from the roots when they resume growth; whereas, if applied after the spring growth commences, the spongioles would be injured. Lime, ashes, and other manures appropriate to different soils and trees, may be applied in a similar manner.

Peach trees should be laid bare to the top of the roots at this season, and the crops of the next year will be materially increased, while the frosts destroy the ova of insects resident in the surface soil.—*Working Farmer.*

BURNING BONES.—We see some of our cotemporaries are recommeding the burning of bones to render them easily reducible, by breaking before dissolving them in sulphuric acid. This is entirely unnecessary, and causes a waste of the nitrogenous parts of the bone. A much better plan is to throw them into dilute sulphuric acid, and after a week draw off the super-phosphate of lime formed by the solution of part of the bones in the sulphuric acid, and break the bones—they are easily broken after such treatment, and may then be returned to the dilate sulphuric acid for further solution. We name this for the use of those who are too far from the large markets to procure phosphate of lime in any other form than as whole bones; but when the native apatite of Dover, N. J., or Crown Point, Lake Champlain, or the refuse bone-black of the sugar refiners can be procured and treated with sulphuric acid, its cost will probably be less than that of collecting bones, except in the vicinity of slaughter houses.—*Ibid.*

For the New England Farmer.

ANALYSIS OF SOILS.

MR. EDITOR:—A few days since, a young gentleman, son of a substantial farmer of this place, called on me to inquire, where he could go to learn how to analyze soils, and to witness practical illustrations of experiments of this kind. I was mortified, not to be able to name any place within *fifty miles*, where this information could be obtained. I told him that an experimental department in agriculture was getting under way in connection with the college at Amherst, where this kind of instruction would be dispensed; but whether students would be admitted for a short time, or on what terms they would be admitted, I was unable to say. I inquired of him, what attention he had given to agricultural studies. He said he had read Prof. Leibig's works, and several others,—[illegible] took your paper, and read it carefully,—and knew most of the elementary substances to be found in soils, but did not know their exact proportions, or how to ascertain them. He said he had much leisure in the winter months, and should be glad to devote his attention to it if he could find some one to direct him in so doing. If he could be informed what articles of chemical apparatus were needed to proceed in an analysis of soils, in a manner to be relied on, he should like to obtain them; as he knew several of his associates who contemplated farming as their employment, and would be glad to possess the information. I was pleased with the intelligent inquiries of the young man, and placed in his hands such books as I had at command, which I thought would assist him. But books alone will not be sufficient. He will need some experienced hand to guide his experiments, at least for a time. Presuming that he is only one of the many similar cases, within the limits of the circulation of your paper, I thought I would state his case to you; and hope you will be able to give such advice as will be of service. Perhaps, if you should mention his case, at the next meeting of the Board of Agriculture, some of the gentlemen there would be able to tell something about it. We have had much *talk* about agricultural education; it seems to me almost time to have something besides *talk*,—in the form of *experimental instruction.*

Jan. 3, 1853.

REMARKS.—Amherst, and the Mount Airy Institution, are the only places within our knowledge,

where the pupil can receive systematic, scientific teaching. When the Massachusetts Board of Agriculture gets through some of its preliminary business incident to a new organization, we trust the suggestion of our correspondent will be attended to.

For the New England Farmer.

FRUITS FOR NORTHERN CULTIVATION.

Mr. Editor: — Annexed I hand you a list of fruit of such varieties as I have in a bearing state, all in field cultivation, without high brick walls or board fences to protect them. I have fruited every variety upon the list, and they all do well with me, with the exception of two varieties, which I have not so fully tested as I have the others;—those are the Northern Spy and Spitzenburg. I feel confident the Spy will do well with us in good cultivation; and if so, it will prove one of the best late-keeping apples, and should be extensively cultivated. The Spitzenburg is a very handsome, rich flavored and late keeping apple, but it has the appearance of being a poor bearer, but may do better as the tree grows older.

I have several other varieties of new fruit under cultivation, which I shall speak of hereafter, if you think the annexed list worth publishing.

Yours truly, W. G. Lake.

APPLES.

Late Keeping Winter.
Baldwin,
Roxbury Russet,
Rhode Island Greening,
Danvers Winter Sweet,
Northern Spy,
Spitzenburg.

Early Winter.
Hubbardston Nonsuch,
Aunt Hannah,
Sweet Baldwin.

Fall.
Fall Harvey,
Porter,
Minister,
Gravenstein,
Alexander,
River Apple,
Luscombe,
William Hill.

Early Summer.
Williams' Favorite,
Early Sweet Bough,
Early Juneating,
Baising Sweet,
Red Astracan.

PEARS.

Bartlett,
Beurre Bosc,
Flemish Beauty,
Beurre Diel,
Duchess de Angouleme,
Louise Bon de Jersey,
Andrews,
Vicar of Winkfield,
Glout Morceau,
Winter Nelis,
Fulton,
Seckel,
Rosteezen,
Buffum,
Van Mons. Leon le Clerc,
St. Ghislain,
Golden Beurre,
Belle Lucrative,
Urbaniste,
Beurre de Aremberg,
Columbia,
Dix,
Tyson,
Beurre de Anjou,
Lawrence.

CHERRIES.

Black Tartarean,
Black Eagle,
Knight's Early Black,
Davenport,
Yellow Spanish,
Arden's White Heart,
Large White Bigarreau,
American Amber,
Early May Duke.

PLUMS.

Green Gage,
Red Gage,
Prince's Yellow Gage,
Imperial Gage,
Washington,
Lawrence's Favorite,
Jefferson,
Black Imperial,
Lombard.

Remarks.—The above was sent us by Mr. Lake on the 6th inst., and before the ink was scarcely dry, he was summoned from this, to that untried, world, "from whose bourne no traveller returns." Mr. Lake was an excellent nurseryman, and full of devotion to his business, as these, perhaps the last lines he ever penned, will declare. Thus in the flush of manhood and life, one after another are called from this busy and anxious state to that to which each passing day is hurrying us on. May we seek from above help to apply our hearts unto wisdom, and be prepared for the summons, however unexpectedly it may come.

For the New England Farmer.

KEEP EXACT RECORDS.

Mr. Editor:—Some remarks in your paper of the 1st inst. have led me to make the remarks which follow, and which if you deem appropriate at the present time, are at your service.

Farmers should record with more care than they are accustomed to do, the results of their own experience. When they raise a good crop, they should record the fact, and describe the soil and the mode of tillage by which so good a result was obtained. If they make a poor crop, they should make a record of this also, and the circumstances which led to it. The experience of the practical farmer is worth more than all the theories and experiments of the chemist in his laboratory. Experience at the bedside is worth more to the physician, than all the theories of the Professor in the lecture room. Theories may assert experience. They may give a right direction to the experiments of the practical man, and often enable him to arrive at his conclusions by a shorter path than he would without them. But experience, after all, must decide. In the living organization we do not always obtain the exact results from the application of chemical principles, that we do when experimenting upon dead matter in the laboratory.

This is true in the stomach. Medicines often fail of their expected results, because their action is modified by substances which they meet with in the stomach, or by the vital powers of the system. So in vegetables, the promises of the chemist are not always fulfilled. There are so many varying circumstances connected with temperature, moisture, and the constitution of the atmosphere for the time being, which are beyond our control, but which nevertheless, modify the results of chemical activities, that the promises even of a Liebig must be received with considerable latitude—a wide margin must be allowed for the record of the deviators from the rigid rule.

Theories can only give a general direction to experiment. Like theories in medicine and morals, they need to be corrected in their working by experience.

But the sciences of morals and medicine are not therefore useless. Far from it, they impart to us the knowledge of certain fundamental principles, which are of universal application, but which, in their application to individuals, require the modifying hand of experience. The case is precisely analogous in agriculture. The careful hand of intelligent experience is needed to modify the application of its theories. For this reason the man of mere science is not the safest teacher, or the surest guide. He may be an accomplished scholar, he may present plausible theories and fine speculations, but they may not be applicable in the circumstances under which it is proposed to apply

them. *The man who is to meet the farmer in the walks of every-day life, who is to suggest to him safe and useful experiments, who is to assist his efforts, and correct his practical errors, who is to secure his confidence and be to him a guide and a friend, must be not only a man of science, but a practical man. He must possess a large share of practical sense, and have occupied a wide circle of observation. The mere Agricultural Chemist, fresh from the schools of Germany, would cost our farmers more by the fruitless and unsuccessful experiments he would set them upon*, than all the advantage would be worth, that would result from his teachings. Our farmers would be disgusted with his ignorance of practical details.

That fine spirit that is manifesting itself at the present time, especially among our young farmers, needs to be fostered and encouraged. If it is directed by a skilful hand, it cannot fail to lead to good results. But if an unskilful hand attempt to give it direction, it will be more than discouraged. It will be changed to prejudice, against all science —which will retard for years, the march of improvement; like the prejudice which arose against the expensive and impracticable experiments of the gentlemen farmers of the last generation, and which has not yet died out of the community, but is still found opposing the efforts of the patriot and the philanthropist for the good of his country and his race.

It seems to me, that what is wanted at the present time, is that the spirit of improvement and enterprise should be encouraged and strengthened, and the farmers taught to unite their efforts, and concentrate their influence for their own and the public good. Prejudice is to be overcome, and a disposition is to be awakened and developed in some practical form, to secure for themselves and their children more and better instruction than they have hitherto enjoyed upon all subjects relating to their daily business. When a public feeling has been called forth, and a demand created for more scientific instruction—then the farmers will be prepared to sustain institutions that will afford them instruction of a higher character. But until a larger demand exists, it will be in vain to furnish a supply. Scientific instruction of a high grade will not be appreciated, and if provided before the practical men are prepared for it, it will only serve to put off to a more distant day the very object at which we are all aiming, viz., practical farming, guided by scientific knowledge.

Remarks.—We commend the above suggestions to every reader, and especially to those in every State, who have a controlling influence in directing agricultural education. The first thing to be done is, to prepare the mind for a better system by the plainest and most practical teachings—the initiatory steps—and until that can be accomplished, all higher aims will prove worse than useless.

A Magnificent Pleasure Trip.—A prominen steamboat owner of this city, who has made an immense fortune in steamboating, has devised a novel, most liberal and magnificent plan for disbursing some of his gains. He proposes to rig in the most perfect style, a steamer yacht, now nearly completed, furnishing her in the richest manner, at a cost of $50,000 over ordinary ships of the kind. About the first of May he will take on board his sons and daughters and forty or fifty other guests, and sail for London, Copenhagen, Stockholm, St. Petersburgh, Havre, Bordeaux, Lisbon, Gibraltar, Marseilles, Naples, Malta, and such other ports as may be desirable, staying a short time at each port, giving fetes and seeing the lions. The entire expense, which is estimated at more than $200,000, will be borne by the projector. This is about the most extensive plan of a pleasure trip ever yet entertained, and when carried out (which it undoubtedly will be) will be very apt to give Europeans some new ideas of the outside barbarians of Yankeedom.—*New York Tribune.*

AUTUMN AND WINTER.

BY FRANCES GAGE.

The Autumn is going with its beauty so glowing,
And Winter o'er all things is casting its pall;
The rose-tree is fading, no longer 'tis shading
The arbor of love or the bright water-fall.

The dahlias are lopping, the ripe fruit is dropping,
The corn-leaves are withered and dry on the stalk;
The ring-dove is sighing, the grasshopper dying,
The fire-fly no longer enlivens the walk.

The forests are changing, the wild birds are ranging
To hunt out a home where the skies are more clear;
The stream deeply flowing, the chilly winds blowing,
All tell us that Winter, cold Winter is near.

Summer's sweets while we're tasting, away all care hasting,
The days of the peach and melon are o'er;
Then let us be trying, while Autumn is dying,
To lay up for Winter a plentiful store.

Work freer and harder, fill the barns and the larder,
Then give to old Winter, whene'er he shall come,
A welcome most willing; we'll heed not its chilling,
If there's warmth round the hearth-stone and plenty at home.

But while we are cheerful—no cause to be tearful,
Let us think of the children of Sorrow and Wrong;
And give from our treasure, with no stinted measure,
Of the good gifts of Heaven to help them along.

Ohio Cultivator.

For the New England Farmer.

PEACH BORER PLASTERED UP.

Having in my garden a very vigorous peach tree, and observing that it was very much affected by borers, especially in the forks of its limbs, I began to cut them out. Still I was afraid that this operation, to be performed in many places, might injure the tree, and as I had some very fine, almost pure white clay prepared, I plastered the limbs of the tree with it, and closed, when the plastering cracked in becoming dry, the cracks by rubbing them over with a painter's brush, dipped in water.

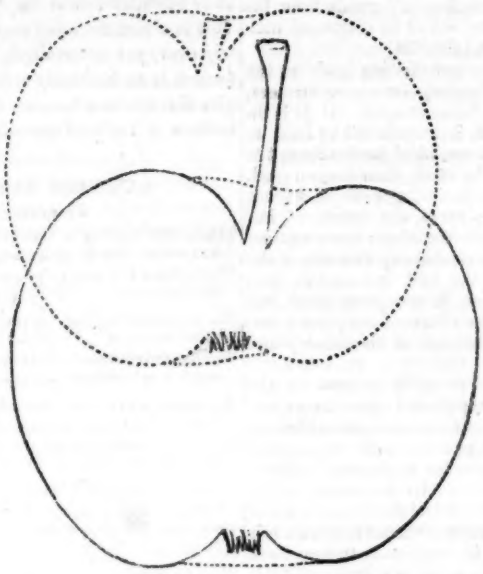
The plastering became hard enough to withstand the effects of rain for several weeks, after the elapse of which all the borers were dead. The wounds caused by them, healed quickly over, and the tree is as healthy as it can be.

This experiment corroborates the fact, relating to the destruction of the apple borer, communicated in No. — of the *New England Farmer*.

Charles Siedhof.

THE GARDEN ROYAL APPLE.

The first outline below, that with the short stem, is a good outline of the Garden Royal Apple. The fruit is below medium, roundish-flat, dull, greenish, russety yellow, mostly covered with dull, deep red in the sun, with numerous large, light red specks, stem short, slender, in a medial cavity; calyx medial, open in a broad, shallow basin; flesh very fine, tender, almost melting, crisp, of a delicious, highly aromatic flavor. There is scarcely an apple superior to it in point of flavor. Fit for use in September and October. Moderate grower and great bearer. Every garden should have a tree or two. Rather small for market. It originated, we believe, in the town of Sudbury, near Boston, and is produced there now in perfection.



THE LONG STEM APPLE.

This apple is excellent for the dessert or cooking from the first of September to the last of October. It is a good and constant bearer. Originated in East Bridgewater, in this State.

The fruit is large, medial size; flattish round; pale yellow, brown full in the sun; dark specks and patches; stem extremely long, slender, in a broad, deep cavity; calyx large, rather open, in a broad and shallow basin; flesh white and tender, juicy, of a rich, mild, delicious, sprightly and aromatic flavor.

FARMING IN THE EXTREME EAST.

Some people, in Massachusetts, seem to think that if you go as far "down east" as Kennebec, you have arrived at the extreme point of the Agricultural kingdom, beyond which no dependence can be placed on cultivated crops; if they continue on as far as Penobscot, nothing is to be found there but Iceland moss struggling for existence on cold blue clay; and if they should dare proceed to the St. Croix, and thence follow up the line that separates Maine from New Brunswick, as far as the mouth of the Aroostook, they would have to encounter granite boulders and perpetual ice quarries all the way. There is a great mistake in this matter, and we have often wondered that ou neighbors just west of us should remain so strangely ignorant, as most seem willingly to be, of the soil, climate and agricultural capacities of this very "down east" State of Maine.

We recollect that three or four years ago last summer, we passed leisurely with our own horse and carriage along the eastern line of our State from Eastport, through Calais, by the State road to Houlton; and we were pl.ased to notice in most places, the excellent quality of the soil, and the exuberant crops that were growing out of the bosom of the earth. Grass, grain of all sorts, potatoes and other vegetables were superior to anything of the sort we ever saw in Massachusetts. The trees of the forests through which we passed were larger than can be found elsewhere in New England. In the course of our ride, one day, we remember we came to a spacious opening, and our eye rested upon a large, white edifice that we took at first for a great meeting-house. On approaching nearer, and inquiring for the use of the building, we ascertained that it was a *barn*. Its piazzas, its neat finish, and its ventillators on the roof, resembling towers, gave it the appearance of a comely church. It was on the farm of Samuel J. Foster, formerly of this city, whose neat and comfortable mansion house was on the opposite side of the road. We halted to see an old neighbor. His location is in Weston, a town named for Judge

of such successful agriculture is equally compimentary to the scientific skill of Mr. Foster, and to the fine capability of our State as a farming country.

Memorandum of crops from thirty-six acres of land, in the town of Weston, in Maine, cultivated by Samuel J. Foster.

30 tons of hay; 667 bushels oats; 186 do. wheat; 97 do. buckwheat; 40 do. corn; 17 do. peas; 947 do. potatoes; 812 do. carrots; 21 do turnips.

The average of oats was 67 bushels per acre; of wheat, 32; of buckwheat, 56; of carrots, 1008; of potatoes, 750.

Mr. Foster remarked that he did not think the whole expense of the buckwheat, when threshed and in the granary, exceeded 12 1-2 cents per bushel.

I think it may be questioned whether any of our Western States afford a more successful sample of agriculture than this. Yours truly,

T. Cushing.

P. S. I also learn from Mr. Foster, that he dug from a field on the bank of the Molunkus river, a carrot of the orange kind, measuring four feet and eight inches long."

That carrot, we suppose, is cousin to those of the same family which, in Illinois, grow down in the earth till they come through on the other side in the Chinese empire. Seriously, we ask any rational man where he can go in Massachusetts, or any other New England State, and with the same labor obtain larger and better crops than accrued to Mr. Foster the past season? Let this *prejudice* against "down east" be done away.—*Gospel Banner.*

LEGISLATIVE AGRICULTURAL MEETINGS.

Second Meeting—Tuesday Evening, Jan. 25, 1853.

The second Legislative Agricultural Meeting of the season was held on Tuesday evening, at the State House.

The meeting was called to order by B. V. French, of Braintree.

Mr. Brown, of Concord, moved that a committee of five be appointed by the chair to nominate a permanent list of officers and prepare business for the meeting.

The motion was carried, and Messrs. Brown, Howard, of Boston, Dodge, of Worcester, Page, of New Bedford, and Merriam, of Tewksbury, were appointed that committee.

They subsequently reported the following gentlemen to constitute the Executive Committee, whose duty it is to secure chairmen for the meetings, prepare rules, and select subjects for discussion—and they were unanimously chosen: B. V. French, of Braintree, J. H. W. Page, of the Executive Council, Joseph Smith, of the Senate, J. W. Proctor, of Essex, and Nath'l Trull, of the House. Mr. Small, of Truro, was subsequently added.

Mr. M. P. Wilder, of Dorchester, was invited to take the chair, which invitation he complied with.

The Executive Committee not having time for action, a topic for discussion was called for, whereupon,

Mr. Merriam, of Tewksbury, suggested for this purpose, whether some change could not be made in the method of bestowing premiums by agricultural societies, which would enable them more effectually to attain the objects for which premiums are designed.

Mr. Merriam remarked in explanation, that he conceived that the present modes of bestowing premiums failed to accomplish their true aim, viz., *improvement* in agricultural products. For instance, take the milch cow. The first premium is awarded to the best animal, without regard to the place where she was raised, provided she had been kept in the county for a period of perhaps six months. She may not be owned by a breeder, nor kept for the purpose of breeding, and was bought, perhaps, at an extravagant price, to please the fancy of some rich gentleman rather than to improve our stock of milch cows. Her competitor m l cow raised in the State, and by a farmer who rears his own stock; but the former gets the premium. Is this course calculated to improve in the least our stock of milch cows? He did not suppose that the object of premiums was to induce rich men to purchase the best cow that can be found in the State or country. The same remarks, Mr. Merriam continued were also applicable to working oxen. In his (Middlesex) county, the regulation is that they must have been owned in the county six months.

Mr. Merriam wished to have the intellectual faculties of the farmer stimulated, as well as his hands, and for this purpose would have the control of agricultural societies placed entirely under his control, and have him draw up the reports, make the addresses, &c. He was confident that it would prove of great benefit, and be a decided improvement on the present method.

Mr. Seth Sprague, of Duxbury, considered it a matter of some difficulty to ascertain how to improve our neat stock, owing to the variance of opinion which exists in regard to the superiority of foreign and native blooded cattle. As to milch cows, our native cows carry off the premiums as often or oftener than the imported ones. He thought farmers generally, paid too little attention to sources from which their cattle spring. They have no criterion, and when they purchase cattle are guided by no particular reason in making a selection, but usually judge of an animal by its general appearance. We replenish our stocks of cattle generally from the droves that come from Maine, Vermont and New Hampshire. Hence, until the farmers of Massachusetts rear their own stock it will be vain for us to talk of improving either our milch cows or our oxen. We may select good cows, take them to the shows, and get premiums,

but when the cow dies there is an end to her superiority, if she has left no progeny behind her; nor even then, unless care has been taken in the selection of the male to propagate from. And in order to raise good stock we must have some standard. If there is all sorts of blood in an animal it will be impossible to tell what the character of its issue will be. It is all hap-hazard.

Mr. J. Brooks, of Princeton, offered some remarks in regard to the breeding of cattle. He said he could in time produce any characteristic in an animal that he wished, and that to any desired extent, and with perfect certainty—as color, shape, for beef or for milk, and a certain quantity of milk. For the last twenty years he had not failed in these matters. But he could not go beyond a certain limit; and he was skeptical whether any man could get above a certain maximum; therefore, if we would breed for any particular purpose, we must have that purpose in view. There should be a particular state of feeling between both animals in order to propagate with certainty. In Europe great attention is paid to this matter and it will be found to be of great importance, for if wished, anything can be propagated that may be desired.

He thought there was one thing agricultural societies were deficient in, and that was a method of determining the comparative value of milch cows, exhibited at the shows. The cow that gives the most milk gets the premium, while another alongside of her that weighs more, and is really the best cow, gets nothing. The weight of the animal, the amount of food it consumes, and the quantity of milk yielded in proportion to the cost of keeping and the live weight should be accurately ascertained, in order to fix the actual value of the beast.

Mr. Dodge, of Sutton, stated that in Worcester County premiums were awarded only for such animals as were raised in the county, with the exception of bulls and boars, that may be brought in with a guarantee that they shall be kept for the improvement of our stock. They had been breeding from imported stock, but could not succeed with the females of either Devon or Ayrshire blood, but had with half bloods. He had tried a cross of the Devon with the Durham, but found it a very undesirable cross. He was entirely satisfied that unless some standard could be obtained, it would be utterly useless to offer premiums so long as foreign steck is permitted to be brought in.

Mr. Wilder, of Dorchester, submitted a few remarks in relation to the importance of having pure blood to breed from. By particular attention to this on the part of the male, we may be sure of great advancement.

Mr. Brooks, of Princeton, desired to know what number of quarts of milk it required to make a pound of cheese. He knew of two dairies supplied by Durham cows, where it took about nine pounds of milk to make a pound of cheese. He desired to know how it was with other dairies, but no response was made at this point.

Hon. Amasa Walker, spoke on the subject of breeding cattle. He said one fact was not generally taken into account in relation to imported stock. He believed it was impossible to raise Durham or Devonshire cattle in this country. There is a radical difference between our climate and that of England, which he believed changed the characteristics of every animal imported from thence. We must depend on a truly Americanised stock. He had some very superior Durham cows, raised in this country, and unsurpassed by any others he knew. But he had a little native breed cow, (what breed he could not tell) that was really a more profitable animal than the Durhams, considering the cost of keeping her and the quality of her milk.

Mr. Howard, of Boston, rose to respond to the inquiry of Mr. Brooks, of Princeton, in regard to the quantity of milk necessary to make a pound of cheese. He stated that no fixed rule could be adopted owing to a variation in the quality of the milk. That milk which is lightest, is the richest. In New York it is assumed that ten pounds of milk, will make one pound of cheese, or one pound of butter. The quantity of milk usually allowed in England, for a pound of butter, is twelve quarts. But that milk which gives the most butter, sometimes does not give so much cheese.

Mr. Howard also replied to the remarks of Mr. Walker, in regard to breeding imported cattle. He did not perceive the distinction which had been drawn between native and foreign stock, for we have no *native* indigenous breeds among us; they were all originally imported. The first cattle brought to this section of the country, came from the southern part of England, and one Devon brought over to Connecticut, gave rise to that numerous breed known as "Farmington reds"; and any one who has an eye for stock can see that they bear to this day a striking affinity to the Devon cattle. If these cattle have retained their affinity to the Devon breed for 200 years, are we justified in saying that we can never breed Devonshire cattle in this country? They have been subjected to no system, and if we adopt an enlightened system of propagation we certainly have every reason to believe that Devons can be raised as well in this, as in their native country. In New York, where the speaker had had considerable experience, the Devons have greatly increased, and instead of receding from the Devon standard, have gradually conformed more and more to it. He believed that the fault in rearing cattle, was in the man, and not in the animal.

Dr. Reed, of Pittsfield, wished that premiums should be awarded only to those farmers, who direct particular attention to *breeding* a good cow,

and not give them to men who happen by *chance* to have a good animal in their possession. In regard to competitors for prizes for crops, he would require them to make a definite statement of the mode of tillage, the kind of soil, what crops had preceded it, the quantity and kind of seed that was sown, &c.

Mr. WALKER replied to Mr. Howard, stating that he knew very well that our neat stock originally came from England, but that he considered stock, which had been in the country, for two hundred years as thoroughly acclimated, naturalized, and Americanized, and fairly entitled to be called native.

The hour of 9 having arrived, the meeting adjourned.

PRACTICAL FACTS FOR PRACTICAL FARMERS.

Under this head Mr. Levi Bartlett, of Warner, N. H., writes as follows to the *Journal of Agriculture*:—

The seed-bearing plants cultivated by the farmer, in common with all other vegetable productions, are, from the first movements of the germ in the seed up to the full maturity of the plant, subject to and regulated in all their growth by fixed laws.

Under ordinary circumstances, the results and operations of these laws are the same. The roots possess the power of absorbing the moisture of the soil, which constitutes the sap. The sap of plants is a solution of nutrient matters, saline and organic, which have been dissolved from the constituents of the soil, manure, &c. The sap passes from the root through the pores and tissues of the stem, trunk, or stalk, into the leaves. The salts are assimilated, as, also, is a part of the water; the remainder being evaporated by the leaves. While, at the same time, carbonic acid is absorbed by and decomposed in the leaf—the carbon assimilating with the salts and organic matters. From the leaves the prepared sap descends through another set of vessels and furnishes materials to build up the perfect plant in all its varied parts.

Nature, in the production of the cereals, corn, wheat, rye, oats, &c., has two objects in view: the perfection of the seed for the reproduction of its species, and the providing food for man and animals.

From the early growth of the plant up to the first formation or foundation of the seed the plant is busily employed in drawing from the soil, water, and the atmosphere, the necessary materials required in the mature seed; but as the seed progresses towards maturity, the phosphates, salts, nitrogen, &c., that were disseminated through the entire plant are drawn from it and concentrated in the seeds; and when they are fully ripened the stems, stalks, and straw are much more deficient in nutritive matters than at the time of the flowering of the plant. But as the seed of the corn, grain, &c., is the first object of the farmer, and the forage of secondary consequence, the seed is suffered to ripen before harvesting.

The same or very similar results occur in the ripening of the seeds of the various grasses cultivated for hay. But as it is the stems, leaves and heads of the grasses that are valuable, rather than the seeds, for feeding purposes, it is for the interest of the farmer to cut his grass for hay at the time it will yield the greatest amount of available nutriment.

Plants, at the time of coloring, contain starch, gum, sugar, and mucilage; all of which are easily digested in the stomach of cattle—and they are all known to nourish them. In the formation of the seed the stem and leaves are greatly exhausted of these substances; and the substance which remains is chiefly woody fibre—a less nutritive and a less easily digested substance.

Farmers differ much in opinion in regard to the proper time of cutting grass. But I find (and it does not require very close observation either) that my cattle are much more fond of clover, redtop and herdsgrass that were cut when the plants were in bloom, than they are of the same kinds that remain uncut till the seeds were ripe enough to vegetate.

From the change that takes place in the grass from the blossoming to the ripening of the seed and the preference given by the cattle to the early cut hay, and the more favorable apparent effect it has upon them, I am strongly of the opinion that a given quantity of the early cut affords more nutriment than the same grasses that are left to nearly mature their seed.

But, as I have said, farmers differ in their views upon a proper time of cutting grass for winter fodder for their stock. I should like to have an expression of the opinion of those who advocate a later cutting of the "hay crop," through the columns of the *Journal of Agriculture*.

For the New England Farmer.

RURAL ARCHITECTURE.

MR. EDITOR:—Will you be so kind as to advise me. I want to become a rural architect, and to commence at the bottom, as the saying is, even at the root of the subject. What *work*, or *works* do I want to assist me? What are best? An early answer in the *Farmer* will much oblige a young friend. ARTISAN.

North Sanbornton, N. H.

REMARKS.—That is right. Become a Rural Architect, if you have a taste for that business, and stick to your determination to *be a thorough one*. Not one half of the carpenters in the State are capable of giving satisfactory estimates of the cost of a common house or barn.

You will find SHAW'S Architecture a complete theoretical and practical system of building, containing the fundamental principles of the art. It has eighty-two copper-plate engravings, showing the elevation and working plans of numerous structures. Published by John P. Jewett & Co., Cornhill, Boston.

There is also, The Carpenter's Assistant, by WM. BROWN, and the Modern Builder's Guide, by MINARD LAFEVER—ninety engravings, for sale by Jewett.

The American Architect, by JOHN W. RITCH, published by SAXTON, N. Y., comprises original designs of cheap country and village residences, with

details, specifications, plans, directions, and an estimate of the cost of each design.

Read carefully Downing's, Allen's and Wheeler's works on rural architecture.

THE PROGRESSIVE FARMER.

This is the title of a work prepared by Rev. J. A. Nash, Instructor of Agriculture in Amherst College, and member of the Massachusetts Board of Agriculture. The following are the leading heads of subjects which are discussed, viz:—*Agricultural Chemistry; Geology of Agriculture; Vegetable Physiology; Animals and their Products; Manures and Practical Agriculture.* Under these general heads, *particular subjects* are treated in a clear, comprehensive, and attractive manner; such, for instance, as the *origin of soils*; *amending soils; chemistry of soils; growth of plants; sources of food to plants; animals*,—kind to be kept, general treatment of, and feeding; milk, butter, cheese; relations of soils and crops to manures;—home resources for manures; barn-cellar and pig-pen manures; night soils, sink drainings, composting; *relation of soil to the atmosphere;* application of manures; deep plowing; profits of amending lands; mixing soils and rotation of crops. The arrangement and explanation of the chemical terms, is excellent; and the tabular views of elements, compounds, and salts, are made more easily understandable than we have ever seen in any other book. We believe the work most admirably adapted for use in common schools, and equally so to every young farmer in the commonwealth. It has been submitted by the author to the State Board of Agriculture, from which it was referred to a committee who reported upon it as follows:

That studies, of this description, might be attended to with much benefit, under competent teachers. The surprise is, that they have been omitted so long, while so many, of less practical utility, have been introduced.

Probably, the want of text books adapted to the understanding of the pupils, has been the cause of this.

The Committee have examined the Progressive Farmer, a work recently published by Prof. Nash, of Amherst, and think it better adapted to the wants of the community, than any work of the kind, that has come to their knowledge.

J. W. Proctor,
Edward Hitchcock,
Stephen Reed, } *Committee.*

The work is published by Saxton, the Agricultural Book Publisher, N. Y., in his usual good style,—large type, fine paper and handsome binding, at 75 cents a copy, and is worth to most farmers three times as much. The omission of a good alphabetical index is the only fault we have to find with the work. In future editions (for they will soon be demanded) we hope this valuable feature will be supplied.

GUANO.

With the nature and uses of this substance every one is familiar. But where and how it is obtained, and other facts connected with the sources of supply, are not so well known—and as guano has been productive of considerable public excitement of late, a chapter upon the subject may not be devoid of interest.

It is a common impression that the discovery of the fertilizing properties of guano has been quite recently made, and that it is only within a few years that it has come into use. This is by no means the case. It has been used by the Peruvians ever since the discovery of America, having been imported by them from the islands on the coast. Humboldt was one of the first who carried it into Europe and brought it into notice on that continent. This must have been at least thirty years since. It was at first introduced into this country in 1825, but was not used to any extent, and was soon forgotten. It was not until it was very extensively employed in England, that it was again imported into this country. Even now very little, comparatively, is used here, as will be seen by the following statement of the imports for three years:

1849	21,343 tons.
1850	11,740 "
1851	23,153 "

The importation of this article into England, amounts at the present time to not far from 200,000 tons per year.

Guano is found upon barren islands on the coasts of Peru, Bolivia, Chili and Patagonia. It is sometimes met with on the headlands of the coast.—That from the coast of Peru and Bolivia is by far the best, for the reason that rain seldom visits those latitudes. That derived from islands farther south being frequently saturated with moisture, is partially decomposed, and has much of its fertilizing properties washed away.

Guano consists of the excrements of sea-birds, intermixed with the bones of fishes, the fleshy parts of which have served them for food, the shells of eggs, and the remains of the birds themselves—all of which are partially decomposed and mixed together. It accumulates rapidly, first, because the swarms of birds of which it is the product are numberless, and secondly, because it is very rarely washed by rains. The quantity of the deposits on some of the islands is almost incredible. It is stated by Mr. Wilson, formerly British Consul at Peru, that on the Chincha islands—notwithstanding more than three hundred tons a year, have been taken away for use in Peru for centuries, and of late years many thousands of tons—it is estimated that there is still remaining the enormous quantity of 17,000,000 tons. An official survey of several islands claimed by Peru was made in 1847, from which it was ascertained that there were on them over 23,000,000 tons—enough at the present rate of consumption to supply the world one hundred and seventy years.

In some places on the Chincha islands the guano is two hundred feet thick, and it varies from that thickness down to three or four feet. It occurs in successive horizontal strata, each of which is from three to ten inches thick. The lower strata is of a dark brown color, growing lighter towards the surface. No earthly matter is found in these vast deposits.

At the time of the first introduction of guano to the world, it was generally supposed to exist only on the coast of Peru and the adjacent islands. But its value stimulated search, and deposits of a similar character were found on the coast of Patagonia, and on portions of the coast of Africa. Near the latter the island of Ichaboe was discovered to be covered with this valuable fertilizer, from which large quantities were procured. But the island being accessible to the whole world without restriction, there was quite a scramble for the article, and the guano was soon removed. It has been stated that there were at one time over two hundred vessels loading at Ichaboe.

The manner of loading guano is usually to haul the vessel under a cliff, if practicable, or if not the ship's boat, and fill up by means of a chute or long canvass bag open at both ends, and leading from the top of the cliff to the hold of the vessel or into the boat. The work proceeds with great rapidity when operations have fairly commenced. *Boston Jou.*

For the New England Farmer.

EATING THEIR BODIES UP.

BY A. G. COMINGS.

There are many strange things in this world, and among them it is not a little strange that a people having so high claim to the rank of intelligence and wisdom as the people of New England, should really, in this nineteenth century, raise and keep any race or kind of pigs, poultry, or other four legged or two legged animals, which can, being permitted, fall to and most unsparingly eat up their own bodies, not leaving ought in gratitude or respect to their reputable owners. But every day reminds us that "Truth is stranger than fiction."

Being mindful of the fact that the kinds of animals have been somewhat popular heretofore, and not wishing to incur the censures of any well disposed person through any misunderstanding of the subject matter under consideration, it may be permitted that a representation be made, to whomsoever it may concern, to this end and purport, namely, that certain inconsiderate and unprosperous persons who have not the fear of poverty before them, do keep, and propose hereafter to keep, for the occupancy and use of their farms, pigs, poultry, and other living things, which creatures have a most vicious propensity and inclination to eat up their own bodies. And, moreover, as in our judgment the interests of all keepers of stock of every kind common to farms, may, consistently with the public safety, submit to the exclusion of all such vicious animals from the farms of New England, this humble prayer is most respectfully addressed and made to the General Court of Common Sense, now in session, and from hence to continue in session in New England, that the said vicious kinds of animals be expelled from among us for reasons which may follow.

Whereas, there has come among us, and to the no small detriment and dishonor of the old yellow hen, which was a faithful friend to those who lived before us, various kinds of ill-looking creatures which claim to be hens, but have none of the comeliness of the old yellow hen, some of which have their feathers on wrong end foremost, and some do make most unmusical howlings which are not fit to be called crowings, and many of these do in a manner most unworthy of all praise, and without leaving one praiseworthy egg, eat up their own bodies, it is desirable that these be forthwith driven out of the farm-yard and out of the market-place.

And whereas there are that are called cows, some of which may appear very beautiful without, that have become intruders in many of the barnyards of New England, which do not give milk enough to pay for their daily bread, and, as a consequence do without any restraint eat up their own bodies, it is desirable that these all be required, in all their tribes and generations, as soon as possible, to offer themselves to the butcher and be ready to lie down in quiet.

And whereas, also, there are hogs and old horses, dogs and dandies, which all do fall short of earning for themselves a living, and most of which do eat up their own bodies without modesty or shame, it is desirable that these be delivered to such officers as will duly execute upon each, according to his circumstances, whatever judgment the public good shall require.

ABOUT HENS.

Much has been said about the importance of large hens. It is fast coming to be understood and known that the difference between the large fowls and the common fowls which we have raised heretofore, is about this. The large ones will grow to double the weight of the common hens, and with double the weight of body there is three times the weight of bones. The cost of raising a hundred weight of the large kind is more than of a hundred weight of the small kind, and is less saleable in market and less inviting upon the table. Before the large hens can be brought to full size and well fattened, they will much more then eat up their own bodies, in the cost of keeping, under ordinary circumstances. The more such fowls a man raises for market, the poorer he will be.

ABOUT COWS.

Among country farmers there are a great number of cows kept which give milk not more than about eight months in the year, and during this time would not make, on an average, more than two pounds of butter each week. Thus a cow would fall short of making 75 pounds of butter in a year. The average price of butter, in the country, is not over 16 cents, taking one year with another. This would give for the butter $12. Add to this $2 for the milk after the cream has been taken off and $1 for the calf at three days old, and you have $15 as the proceeds of the cow for one year. Now for her cost. Call the cow worth $15 to turn into beef. The interest of $15 is 90 cents. (Omit tax on the cow.) Her keeping in summer $5. In winter $12. Time and labor in milking and taking care of milk and butter, $8. This would make the sum of $25,90 for the yearly expense of the cow, while her yearly income is only $15.

Now suppose that the cow would give milk 10 months in the year, and for 25 weeks would make 8 lbs. of butter per week, and for 17 weeks more would make 4 lbs. per week, making in all 268 lbs., (which is far below the product of many good cows,) it would amount to $42,88 cents. Who will find a difficulty in seeing that one of the cows is a dead loss of nearly $11 in a year, and

would eat her body up, under such circumstances, in less than a year and a half, while the other would give a clear profit of nearly $17 per year, allowing the same expense of keeping, &c. But making $5 allowance for extra expense of interest keeping and tending, and there would still remain a clear profit of about $12 per year, or the interest of $200, and a difference in the profits of the two of about $25 per year. A good cow, with good keeping, ought to afford 300 lbs. or more of butter yearly.

ABOUT HORSES.

The old horse that does not earn more than a half dollar per week, the year round, will cost for keeping and shoeing not less, certainly, than $50 in a year. Suppose him to be worth $20, and see how the gain or loss will be. Interest on $20 for one year will be $1,20; taxes we will call 10 cents; cost of keeping and shoeing $50; making a total of $51,30. Service of the horse at 50 cents per week, $26. This subtracted from $51,30 leaves a bill against the old horse of $25,30. This is $5,30 more than the horse was worth at the beginning of the year. The old horse has eaten his body up, and is ready to go about doing it again. Pretty soon he will swallow down a calf or a yearling, or perhaps a small cow, besides eating himself up. Whether farmers will continue to keep such kinds of creatures is a matter for them to inquire into.

As to dogs and dandies, they are generally about as much profit to a farm as the itch is to a family of children. They keep the farmer scratching all of the time, to make a poor living. They are not fit to throw to the hogs, and they eat themselves all up for a breakfast every day they live. All the use we can think profitably of making of them is to put them into the poultry yard to help the Shanghai roosters to crow.

Mason, N. H.

Mechanics' Department, Arts, &c.

HOOSICK TUNNELLING MACHINE.—A writer in the *Traveller* furnishes a long report of the doings of this machine, the substance of which is, that though difficulties incident to the magnitude and novelty of the machinery have been encountered, its ultimate success is considered certain by those best acquainted with it. He says:

"It may be proper to state that among those who have witnessed these operations, are some of the best engineers and most scientific gentlemen in the United States. They have, without an individual exception, expressed a favorable opinion of the principle on which its superior excellence is founded, and believe it will not disappoint the expectations of its numerous friends and well-wishers. The directors of the Troy and Greenfield Railroad Company are satisfied that its success is sure, as their expectations are more than realized."

☞ *Fast Travelling.*—The express train which left Boston at 4 P. M. Sunday, with the English mails for the South, reached the depot in New York at quarter before 10 o'clock, making the passage in *five hours and three-quarters!* This is the quickest time ever made over the road. Twenty-five passengers enjoyed this whirling through the air.

Boy's Department.

A FLOGGING MASTER OF THE LAST CENTURY.

In the volumes of Miscellanies by De Quincy, just published in this country, the "opium eater" thus describes Bowyer, a teacher, who religiously adhered to the doctrines contained in the old proverb, of "Spare the rod and spoil the child:"—

"The third person raised to divine honors by Coleridge was Bowyer, the master of Christ's Hospital, London—a man whose name rises into the nostrils of all who knew him with the gracious odor of a tallow-chandler's melting house upon melting day, and whose memory is embalmed in the hearty detestation of all his pupils. Coleridge describes this man as a profound critic. Our idea of him is different. We are of opinion that Bowyer was the greatest villain of the eighteenth century. We may be wrong; but we cannot be far wrong. Talk of knouting indeed! which we did at the beginning of this paper in the mere playfulness of our hearts—and which the great master of the knout, Christopher, who visited men's trespasses like the Eumenides, never resorted to but in love for some great idea which had been outraged: why, this man knouted his way through life, from bloody youth to truculent old age. Grim idol! whose altars reeked with children's blood, and whose dreadful eyes never smiled except as the stern goddess of the Thugs smiles, when the sound of human lamentations inhabits her tears. So much had the monster fed upon the great idea of 'flogging' and transmuted it into the very nutriment of his heart, that he seems to have conceived the gigantic project of flogging all mankind; nay worse, for Mr. Gilman, on Coleridge's authority, tells us (p. 24) the following anecdote:

'*Sirrah I'll flog you*,' were words so familiar to him, that on one occasion some *female* friend of one of the boys (who had come on an errand of intercession), still lingering at the door, after having been abruptly told to go, Bowyer exclaimed—'Bring that woman here, and I'll flog her.'"

NOVEL SCHOOL REGULATIONS.—A Canadian paper gives the following as the literal copy of the rules and regulations adopted by the school trustees of school section No. 14, in the township of Nissouri, Oxford. It is worthy of preservation as a curiosity of literature:—

"Thou shalt not lie thou shalt not swear thou shalt not speak a smoty or blagard talk thou shalt not steal thy neighbor's dinner his ink or handle his books or anything that is his.

"No whispering no laughing no leaving Seats with liberty nor medole with books Slates pens nor ink without liberty no quarreling no lying no Swearing Stealing nor telling tales out of schools no disputing no bad language no fitting no pushing each other in the mud nor in the ditch on the road home.

"Any children coming without proper books their parents to be no te fyed by a letter if not punctually attended to shall be liable to be dismissed from school."

Advertising Department.

☞ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square of 15 lines, one insertion.....$1,00
For each subsequent insertion.....50

☞ The above rates will be charged for all advertisements, whether longer or shorter.

Great Offering of Real Estate.

The subscriber wishes to sell his homestead place well known as the CAT BOW FARM, consisting of five hundred acres, over two hundred of which is first quality intervale, and in a state of high cultivation, the residue is upland pasturing and wood. The farm is beautifully situated in Lancaster, the shire town of Coos County, N. H., on the banks of the Connecticut River. The location is one of the most attractive and beautiful in New England, the scenery is magnificent, both in summer and winter, and for beauty cannot be surpassed. The river at this place assumes the form of a curve, so that *sixty five* acres are enclosed by nineteen rods of fence. It is but one day's ride from Boston, and is only a short distance from the Atlantic and St. Lawrence Railroad. There are two good dwelling-houses and other necessary buildings on the place. A sufficient quantity of water of excellent quality is conducted to the houses and yards from a never failing spring. He also offers for sale, a large tract of eighteen hundred acres nearly adjoining the above, mostly covered with timber and of easy access to said river. He will also sell his house known as the "WHITE MOUNTAIN HOUSE" and farm of two hundred acres, well and pleasantly situated at the White Mountains; has a good run of custom during the visiting season. This is a fine opportunity for a good and safe investment. *All* or *part* of the above property will be sold at a *bargain*, as the owner wishes to lessen his care. For further particulars and terms, inquire of the subscriber at Lancaster, or at this office.

JOHN H. WHITE.

Jan. 15, 1853. 3m*1

Ayrshire Stock.

Wanted, a thorough bred Ayrshire Bull, and Heifer, not exceeding two years old. Any person having such for sale, or very likely Calves, will please apply to the subscriber at this office.

☞ Also wanted, a fine native Bull, about one year old.

JOHN RAYNOLDS.

Jan. 1, 1853.

Administrator's Sale of a Farm in Concord, Mass.

BY License of the Court of Probate for the County of Middlesex, will be sold at Public Auction on Saturday, March 26th, at 1 o'clock P. M., on the premises; the farm lately owned by Capt. Humphrey Hunt, (deceased) situated in Concord, Mass., ¼ a mile from the village centre, on the main road to Lowell—comprising about 75 acres of first rate land, well divided, and entirely fenced with stone wall, having thereon two wells of excellent water, also, a spring of soft water; is abundantly stocked with fruit trees, mostly budded and grafted fruit, and a good cranberry meadow, which yield largely in favorable seasons. Said farm has descended from father to son, since the first settlement of the town to the present time, and has always been kept in a high state of cultivation, and is considered by competent judges to be as desirable a farm, both from quality of soil, and beauty of location, as any in the county. Also will be sold about 60 acres of pasture land, situated in north part of the town, and 1½ miles from said farm; also, 5 acres situated in east part of town, known as "Great Field." Likewise, two good cows, small lot of good English hay, one cart, and a few farming tools. Immediately following the sale of the above, will be sold a portion of the household furniture, bedding, &c., &c. Terms liberal, and made known at time of sale. Should the weather be stormy on the day above mentioned, the sale will be postponed to the same hour on following Monday. For further particulars, inquire on the premises, or to SIMON BROWN, ESQ., Editor of the New England Farmer.

B. N. HUDSON, } Administrators.
J. B. MOORE, }

S. STAPLES, Auctioneer.

Concord, Jan. 29, 1853. 8t

Bound Volumes.

BACK VOLUMES of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

The Farmers' Library.

JUST RECEIVED, the following assortment of Agricultural and Horticultural Books, embracing the standard works of eminent American and European writers, on the Farm, the Orchard, the Garden, &c. &c.

	PRICE.
American Farm Book, by Allen,	$1,00
Farmer's Treasure, by Faulkner and Smith,	75
Dana's Muck Manual,	1,00
Prize Essay on Manures, by Dana,	25
American Muck Book, by Browne,	1,00
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